THE LANCET.

VOL. II.] LONDON, SATURDAY, MAY 15, 1841. [1840-41.

COURSE OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND DISEASES
OF
THE EAR.

By GEO. PILCHER, *Esq.*, *Lecturer on Surgery.*

DELIVERED AT THE
WEBB-STREET SCHOOL OF MEDICINE,
SOUTHWARK.

Arranged and Prepared from Notes
By THOMAS WILLIAMS, *M.B.*, *&c.*, *Demonstrator of Anatomy at the same School.*

LECTURE V.

BEFORE proceeding to the examination of the organ of hearing in the superior *osseous fishes*, the general statement may be made, that it presents no very obvious differences as regards the number and disposition of its parts, from that state under which we found it in the cartilaginous division. Like the latter class, the higher organised bony fishes present the auditory apparatus in a condition of comparative simplicity, composed only of semicircular canals and vestibule. The saccular projection from the *sinus communis*, constituting, according to some anatomists, the rudiments of the future cochlea, forms the transitional grade from the uncomplicated labyrinth of fishes to that of amphibia and reptiles, in which the cochlea appears.* In a preceding lecture it was incidentally observed, that Treviranus, Weber, Monro, and some others, among whom Hunter may be ranked, had positively described pouches in the skin and integument over the situation of the ear, which they conceived to stand in that relation to the labyrinthic apparatus in the cartilaginous fishes, which the fenestra ovalis occupies, in reference to the vestibule of the higher animals. But in the rays and sharks, in which they can most readily be demonstrated, the counter-opinion of Blainville, Bell, Scarpa, and Müller, that they cannot, from their anatomical arrangement, and remoteness from the internal ear, fulfil the purposes of an auditory meatus, may be very conclusively verified. It appears the more important to impress you with a right notion upon this disputed question, since it affects a fundamental principle in acoustics, that solids offer conditions more favourable for the conduction of sound than liquids or aeriform fluids.

It has already been noticed, however, that in the skates and rays, and others of the plagiostomatous fishes, there is an elongation which projects from the inner and upper corner of the vestibule, and rises into contiguity with the common integument, covering the interval between the two eyes. The extreme end of this prolongation is supposed by some writers to represent the fenestra ovalis. Notwithstanding the apparent affinity in structure, there are objections raised by Müller, to considering this as designed to perform the part of an external communication. It is obvious, he states, from the strength and thickness of the integument of which it is composed, that the vibrations of the surrounding water could not be conveyed with any greater force through its medium than that of the cranial bones. The supposed analogous structure with which the amphibia, living for the greater portion of their existence in the water, are provided, is a moveable operculum, covered with muscles and skin, and incapable, according to the experiments and imitative contrivances of this physiologist, of assisting hearing in *water*, but calculated materially to improve it in *air*. If this be the case, it may be thought that the arrangement of this part in cartilaginous fishes cannot add much to the intensity of audition.

In *osseous* fishes there is no fenestral communication with the external surface; nor is there any trace of a vestibular opening. There are, however, one or two exceptions to this general law of structure. The information is given us on the authority of Otto and Heusinger, that in the ear of two species of the lepidoleprus, of which little is known, diverticula of the vestibule are observed to be conducted through corresponding apertures in the cranial bones into contact with

* An opinion, the incorrectness of which will be afterwards proved.

the integument. It has been remarked, that in the higher genera of cartilaginous fishes, these productions of the vestibule are so obvious, as to have been by Weber compared to external auditory canals. This unquestionable distinction between the disposition of the auditory organ in the two classes, must be associated with some equally distinct physical law.

In the soft material of which the skeleton of cartilaginous fishes is composed, it is manifest that sonorous undulations conveyed to the ear can undergo but little increase, by resonance and reflexion, from one wall of the acoustic chamber to another; additional contrivances become, therefore, necessary, to produce the perfection of hearing. In the plagiostomatous fishes this is realised in the arrangement, by which the auditory sac is prolonged into more or less immediate communication with the integument of the head. It is evident that the inferior and imperfect power of conduction enjoyed by the cartilaginous skeleton of these fishes, renders a provision necessary for bringing the internal ear into advantageous communication with the vibrating element. It is on this account, probably, that the fenestral-like prolongation of the labyrinth exists in the shark and rays. In the cyclostomatous fishes, as the myxine and lamprey, the acoustic sacculus, with its rudimentary canals, it was formerly stated, is wholly imbedded in the cranial cartilage; a circumstance which obviously renders the organ of hearing with difficulty influenced by the vibrations propagated to the body and head of the animal, and therefore explains their imperfect hearing.

In osseous fishes, however, these auditory passages are superseded by the intensity with which vibrations are communicated through the solid structures of the body. The resonant properties of bone, likewise, by the reverberation and echo which occur in the labyrinthic chamber, reinforce the sound, and consequently impress with augmented effect the auditory nerve.

It was stated in the preceding lecture, that the semicircular canals in fishes attained a considerable size, exceeding those of mammalia and man, alike in length and breadth. The external superficies, however, of the cartilaginous or osseous canals, form a very fallacious gauge for determining the admeasurements of the membranous canals. In the class of fishes the proportional dimensions of the containing and contained canals discover few variations; the diameter of the membranous being one-third that of the cartilaginous or osseous, in which they are lodged: thus leaving a very considerable interval for occupation by the labyrinthic water, or perilymph of Cotunnus. Prosecuting the examination towards the interior, it will be discovered further, that the measure of surface offered by the membranous canals externally, forms no correct index of the capacity of the channel within, in consequence of the disproportionate thickness of their walls.

This principle of construction, by sensibly narrowing the cubic surface over which the nerve is spread, and correspondently limiting the extent and amount of the vibrating materials, obviously has for its object to subdue the intensity of the rougher undulations. In speaking of the membranous labyrinth of fishes, it should be recollected that the cochlea cannot be anatomically included; for it will be subsequently shown, that the supposition of Breschet and Cuvier, which establishes an analogy between it and the sacculus, as exhibited in the diagram of the lophius piscatorius, is erroneous. The cochlea is an appendage to the cartilaginous or osseous, and possesses, in its structure, nothing in common with the membranous labyrinth.

The bony labyrinth may have arrived at comparatively advanced perfection, as presented in the classes of fishes now under examination, without the formation of an unequivocal cochlea. The membranous vestibular sacs, ampullæ, and semicircular canals, continue likewise as separate elements of the auditory apparatus, in reptiles, birds, and mammalia; for in the former, as well as in the latter, the cochlea may be determined as a chamber superadded to the *osseous*, and not to the membranous labyrinth. The incorrectness of the analogy, therefore, sought to be instituted between the sacculus vestibuli of fishes, and the cochlea in its rudimentary form, is contradicted by the fact of their anatomical independence. From this it is evident that the pouch sometimes observed upon the sinus communis canalium semicircularium, or the sacculus vestibuli, or any other diverticulum of the *membranous* labyrinth, cannot represent the future cochlea, since the latter belongs to the osseous or cartilaginous labyrinth. The cochlea, and its specific organisation, will, however, be subsequently considered.

The humours of the labyrinth in fishes require separate attention. In mammalia, it is known that the chambers of the labyrinth are partitioned off in such manner as to be capable of containing two liquids, of which one occupies the interspace between the membranous and osseous canals, and the other fills the *interior* of the former. The analogy furnished us in the mechanism of the *higher ears*, has induced the supposition that in fishes, likewise, a similar arrangement must exist: the grounds of the comparison, however, are imperfect. In fishes, for the most part, the membranous labyrinth constitutes exclusively the auditory apparatus, for the cavity of the cartilaginous or osseous labyrinth communicates freely with that of the cranium, apparently removed from each other only by the intervention of the arachnoid tunic, or, in some instances, the dura mater. It is thus that anatomists have been

led to the incorrect comparison of what Breschet has denominated the *endolymph* contained in the membranous labyrinth, and the liquid of *Cotunnus*, which in the higher animals De Blainville and Breschet have called the perilymph. The anatomical construction of the ear in fishes, however, explicitly points to the encephalic liquid, as the counterpart of the perilymph of mammalia. It is an opinion, which has long been expressed by Weber and Breschet, that the lining of the cartilaginous and osseous labyrinth is derived as a prolongation from the dura mater and arachnoid; the former of whom further remarks, that even in mammalia the delicate vascular lining of the labyrinth is originally, in the earlier stages of embryonic existence, continuous with the cranial meninges.

This statement, however, must be received with caution, since it has been already observed, that the organs of sense are formed in instances in which no trace of brain is present. The lining membrane of the aqueducts of the more perfect organs, in their mode of formation, have been thought by Meckel to resemble that of the labyrinthic membrane: an account supported by Mr. W. Jones, who believes likewise that the interior of the osseous labyrinth owes its *lining* membrane originally to a production of the dura mater and arachnoid; which may be illustrated by the example of the processus vaginalis peritonei, when prolonged as a covering to the testicle.

Ear of the Lophius Piscatorius.

Fig. 4.

(a) Sinus communis.
(b) Sacculus rotundus.
(c) Posterior canal.
(d) Anterior canal.
(e) External canal.
(f) Ampullæ.
(g) Utricle.
(h) Nerve.

The *acoustic nerve* presents no peculiarity in its distribution in fishes, excepting that in the instances of its continuation by means of slender filaments, inwards as far as the surface of the otolitic mass. It proceeds in a separate form from the medulla oblongata, at its posterior and inferior portion, emerging evidently by that sulcus on the lateral part of the medulla which intervenes between the olivary and restiform bodies, and which, if traced inwards, would lead into the fourth ventricle; thus corresponding, in its anatomical characters, with the portio mollis in the human subject.* In proportion as it approaches the ear, the nerve undergoes division into branches, of which some, reduced in size, proceed towards the ampullæ of the semicircular canals, the remaining being seen to spread themselves over the sacculus and vestibule.

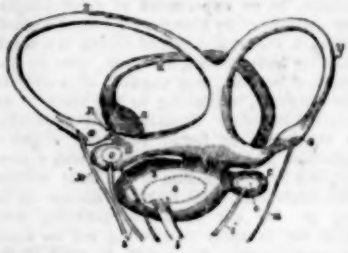
In many fishes it is not difficult to show that delicate fibrillæ from the nerve continue inwards, to connect themselves to the calcareous otolites, by means of a groove, provided on the convex surface of these bodies. There is some ambiguity in the signification of this arrangement. Roget exemplifies the principle of its operation in the work of hearing by the clapper of a bell, to which he supposes them to perform an analogous office. The acoustic purpose of this peculiar contrivance, however, is rendered still more obvious, by an experiment of great simplicity performed by Camper: he filled a small bag with water, and placed within it a small globular body, which, of course, from its unattached freedom, was capable of rolling in any direction, according to the force of an external impulse. Sustaining the apparatus in the hand, he found that the slightest agitation given to the bladder was *repeatedly* felt by the reaction of the body within. The vibrations, then, of these masses existing in the ear of fishes, probably augment the intensity of hearing not so much by reverberating from wall to wall in the labyrinthic cavity, as by direct propagation along the filaments of the auditory nerve attached to the surface of the vibrating body. The masses of *calcareous matter* contained in the interior of the labyrinth, surrounded by the endolymph, of which we have spoken, according to some, are discoverable in all classes of animals, from the vestibular ear of crustacea and fishes, to that of the human subject. These cretaceous substances amount, for the most part, to *three* in number, and are found within the vestibular sacs, and its communicating smaller sacculi. In density they present variations according to the class of fishes in which they are examined. In the cartilaginous, as formerly stated, they assume a pulverulent, and sometimes crystalline, appearance, and are soft and pulpy in consistence.

In the osseous fishes they acquire a petrous density proportionate to the perfection of the ossific structure of the animal's skeleton, that is, the more complete the transformation of the cartilaginous into the bony skeleton in the series, the greater the density of these

* See diagram.

otolites. In figure and size they also vary, according to the species. In some, as the *salmon*, they are incurvated like the valve of a shell. The chemical constitution of these substances, as conveyed by the terms, calcareous and osseous, so frequently employed, appears to be made up of common components; differing from that of ordinary bone in the proportion of phosphate of lime, which in these bodies is small. The analyses of Huschke and Barruel determine their ingredients to be, carbonate and phosphate of lime and mucus, in addition to which a little animal matter was made out. These concretions, when discovered in the semicircular canals, are confined to the ampullæ. In fishes it is plainly shown, by the accompanying sketch of the labyrinth and otoconies,* that the proper situations for the lodgment of the latter are the common sacculus, the utriculus of the sinus canalium communis, and the pouch of the vestibular sac called the cysticule. With these situations

Membranous Canals of Lophius Piscatorius.
Fig. 5.



(a) Ampullæ.
(c) Cysticule.
(s) Sacculus rotundus.
(n) Branches of nerves.
(o, o, o) Otolites shown in outline by dotted lines.

a coincident disposition of the branches of the nerve is remarked, a considerable division being implanted on the external surface at points corresponding to the resting-places of these otolitic masses. The error has been committed of comparing these substances in acoustic properties to the tympanic ossicula. From the peculiar principle of adjustment, however, evinced in these delicate elements of the auditory apparatus, floating as hydrostatic balances in the humour of the cavity, they are admirably calculated to reinforce the sonorous undulations within the acoustic chamber. The office of the tympanic chain of bones, is the conduction of the sonorous undulations from the external to the internal ear.

It is to Professor Weber that we are indebted for the discovery of a *communication between the air-bladder* and the *labyrinth* in bony fishes. From this statement it is not to be inferred, however, that the aeriform contents of the swim-bladder have a free and undivided communication with the cavity and contents of the labyrinth. This, indeed, were to make grounds for the revival of an exploded and antique *theory* of audition, propounded and recognised in the days of Fallopius, Eustachius, and Duverney; according to which the faculty of hearing was dependent upon the agitations of some occult principle, or subtle and innate air, *aer ingenitus*, that pervaded the various windings of the labyrinth. Diogenes, and even the observant Aristotle, gave their admission to the existence of this *aer ingenitus;* and it was not until the more enlightened labours of Dominico Cotugno that the precise mechanism of the labyrinthic chambers, with their separate humours, was conclusively shown.*

The orders of animals to which our ascensive method of study leads us next to examine, are the *Amphibia and Reptiles.*

* Ωτος, auris; κονις, pulvis.

* [The connection which exists between the air-bladder and the ear is established, in the greater number of instances, by the intermedium of a chain of small bones. This bony junction is seen in all the species of the genus cyprinus or carp; in the silurus, including some electric varieties; and likewise in the cobitis fossilis, or loache. In these examples the communication is established by means of a series of ossicula, articulated, according to Weber, with the three first vertebræ, and in contact posteriorly with the air-bladder. They are so definitely arranged between the labyrinthic membrane at one extremity, and the air-bladder at the other, as to have suggested a comparison between them and the tympanic ossicles of mammalia. The analogy has been extended into the supposition, that the air-bladder performs the same part to the ear of these fishes, with that which, in the higher animals, devolves upon the membrane of the tympanum. The first vertebra is situate in close approximation to the ear, and presents on its transverse process a foramen or sinus, in which the ossicle, corresponding to the stapes in mammalia, is lodged; the malleus, at the other extreme of the chain, being in contact with the air-bag. In other fishes, however, the communication between the auditory organ and the air-bladder is accomplished without the intermedium of bones. The herring presents us with an example, in which the bladder is prolonged anteriorly into a tubular sac which bifurcates, and extends into contact with the labyrinth through appropriate apertures in the occipital bone. In some genera of fishes, the connection is established indirectly through the intervention of the encephalic liquid. Other differences are found in the mode in which the ear is made to communicate with the air-bladder.—T. Williams.]

ON DRY GANGRENE.

By E. Crisp, Esq., Surgeon.

[Read before the Medical Society of London, Jan. 18th, 1841.]

The disease upon which I am about to treat, appears to me to have been but imperfectly investigated by the surgeons of this country; and, although many have cursorily alluded to it, I know of no record of cases, with the exception of Pott's, which can be referred to, and these are altogether deficient in pathological information. My attention was first directed to this subject in consequence of a case which I brought before the society some years since (published in The Lancet, Jan. 2, 1836). As a long period has elapsed (six years), and as the case is one of great interest, I may, perhaps, be excused for again giving the outlines; indeed, such a repetition is necessary, for the purpose of rendering the subsequent history intelligible.

Jan. 31, 1835. I was requested to visit a girl, ætat. 22, who, after three or four days of great constitutional disturbance, had acute pain along the course of the arteries of the extremities. On the fifth day no pulsation could be discovered at the wrists, or within an inch of each clavicle. On the thirteenth day the dorsal artery of the left foot was pulseless, and there was but feeble pulsation in the popliteal. On the eighteenth day it ceased about three inches below Poupart's ligament. On the twenty-second day no pulsation in any of the arteries of the extremities. The cessation of pulse always preceded by intense pain. Dry gangrene occurred in both feet; and I amputated the left leg, below the knee, on the 1st of October, nine months from the commencement of the attack. *The blood did not flow from the large arteries per saltum.* At this time pulsation ceased about two inches below Poupart's ligament, in the left femoral artery, and it could be felt in the right as far as the triceps. Pulsation was entirely absent in the right upper extremity, and very feeble in the left.

Sloughing to a small extent occurred on the tibial side of the wound, but on the twentieth day the appearance was healthy.

February, 1838. A portion of the stump, about the size of half-a-crown, had not healed; it remained in an indolent state for ten months, when it became perfectly cicatrised, and she was soon able to use a wooden leg.

I have frequently seen the patient since the last report, and this morning, assisted by a medical friend, Mr. Webber, I made a very careful examination of the principal arteries of the body, and also ascertained the following particulars:—

She states that her health has been quite as good as before the attack; she has not been so subject to hysteria, but has had more headach; and her sight is somewhat impaired, especially towards night. She has menstruated regularly; has had no palpitation of the heart; appetite good; bowels regular; has sometimes walked a distance of two miles. The stump is always cold, and she was obliged to envelope it in cotton during the winter; the skin frequently has a purple tinge. The right foot and leg also cold; the latter, as well as the stump, often affected with chilblains, and the foot becomes œdematous sometimes towards evening. The arms and hands are below the natural temperature; the right arm frequently numb, and she has less muscular power in it than in the left. The sense of touch perfect. If slightly bruised, the skin on the arms becomes black. Perspires on the trunk and face profusely in warm weather; says "the perspiration is less on the right arm than on the left." No pulsation can be felt below the clavicle on the right side, and on the left it is extremely feeble; and sometimes imperceptible, both in the brachial and radial arteries. Pulsation ceases in the right femoral artery, about two inches below Poupart's ligament; and in the left about an inch and a half. The beat of the carotids is much reduced in force, 80.

The sounds of the heart are natural; "bruit de rape" is heard in all the plugged arteries.

A few months after this report (May) I visited her, with Messrs. Pilcher and Liston, and we found the arteries in the state last described.

Jan. 15, 1841. I again carefully examined the arteries, and found them in the state before mentioned, 1838. Slight bellows-sound is heard above the right clavicle. She states, "that her health has been better of late; and during the present cold weather she has less difficulty in keeping up the temperature of the limb than formerly." She was often obliged to place the foot upon a tin vessel containing hot water.

It will be remembered that the case was fully discussed, and very different opinions were expressed, as to the nature of the affection. Many gentlemen thought that the non-pulsation was occasioned by functional disturbance of the arteries; whilst others, including myself, believed that arteritis was the cause. I apprehend that all will now agree as to the correctness of the latter opinion. The subsequent history of the symptoms, as well as the occurrence of cases of a somewhat similar nature, in my own practice, and in the practice of others, will, I think, almost warrant a positive inference. Time will not allow me to touch upon the many points of physiological interest connected with this case; I will, therefore, proceed to enumerate examples in sup-

port of the opinion which I have long entertained, viz., that dry gangrene is, in the great majority of instances, the effect of arteritis.

The three following cases I attended in the poor-house, Walworth, during the illness of Mr. Lowne, the parochial surgeon:—

Mrs. Crown, ætat. 84, was admitted into the poor-house, Walworth, Jan. 29, 1840, with dry gangrene of the right great toe, extending as far as the second phalanx. The tips of the second and third toes were also black and gangrenous. She had, previous to the gangrenous appearance of the toes, suffered great pain. Ordered yeast poultices, and opium at bedtime. She died Feb. 19th. The gangrene did not extend from the time I first saw it, but she suffered intense pain, which was only relieved by large doses of opium.

I examined the anterior tibial, tarsal, and inner plantar arteries. The first, after its passage through the interosseous ligament, was hard and cylindrical; on cutting into it, a portion of lymph was found to occupy the caliber of the artery, to the extent of an inch, being firmly attached to the inner coat; this membrane, throughout its whole extent, was of an intense vermilion colour, containing, in various parts, bony and atheromatous deposit. About an inch before its termination it was quite impervious, from deposit of lymph, which had a cord-like feel, and must have existed for some time. The inner plantar artery was more healthy in appearance, but the lining membrane presented patches of intense redness.

The arteries were seen by Mr. Darvill, on the day after their removal, when the inner lining still exhibited the vermilion tint.

I was requested to see Susan Brown, poor-house, Walworth, Dec. 25, 1839. She for some days had been troubled with diarrhœa, attended with frequent pain in the abdomen; the motions profuse and watery; for about a month the bowels, at intervals, were in a relaxed state.

The treatment consisted in the administration of opiates and ipecacuanha, internally, with hot fomentations to the abdomen.

Jan. 25. She complained of excessive pain in the calves and fronts of both legs, extending into the hams, feet, and thighs; the pain, however, was much *more severe in the right*. There was no preternatural heat or swelling, but the pain was increased on pressure: it was so excruciating that she frequently screamed. This continued for a few days, when a black spot, of some extent, was observed on the outer side of the calf of the right leg; this increased till it was as large as the hand; it had a black, dry, shrivelled appearance. The foot and leg became cold, and the sensibility, on touch, was somewhat increased; the skin was of a livid mottled hue.

She died March 16. The pain, four weeks before her death, was much less acute; there was no *pulsation in the femoral artery*; the pulse at the wrist varied from 70 to 90; the temperature of the foot and leg, below the part first attacked, less than natural.

Autopsy Twenty-six Hours after Death.

Mr. Darvill present. The body rather emaciated; the right foot and two-thirds of the leg of a dark livid appearance; the foot and part of the leg quite black, but no sloughing has taken place. After examining the heart, about which there was nothing remarkable, we removed carefully the whole of the aorta, with the external iliac, femoral, popliteal, anterior and posterior tibial, and peroneal arteries, with the femoral vein, and the following appearances were observed:—

The caliber of the aorta rather larger than usual; its inner lining presented various patches, of a vermilion tint; the membrane darker than natural, with a few spots of atheromatous deposit; the femoral and popliteal arteries, with their veins, very large, having a cord-like feel; this arose from coagulated blood, of a light brickdust colour, very tough, and firm. The coagulum in the femoral artery commenced at the origin of the profunda; but here it was quite fibrinous, and firmly adherent to the artery; a portion projected into the canal, so as to form a sort of valve over the profunda, the opening of which was quite pervious. The anterior tibial artery contained a large quantity of fibrinous deposit; its inner lining very red; and at its lower third it was converted into a bony cylinder, about half an inch in length, between its inner and middle coats, not, however, rendering the canal impervious. The posterior tibial artery was filled with fibrinous coagulum, and its upper part, the middle third, contained a large quantity of ossific deposit; the peroneal artery was healthy.

In this case hot fomentations were used to the leg, followed by yeast poultices, with large doses of opium, internally, without which she obtained no sleep, in consequence of the severity of the pain.

Aug. 11, 1840, I visited at the poor-house, Walworth, J. B., ætat. 72, a brickmaker, of intemperate habits. He had been subject to rheumatism, and on Jan. 12th last he felt great pain in the calf and fore part of the right leg. He had been troubled with what he called a scorbutic eruption for some years; this eruption disappeared, and the inner part of the ankle became red; it soon put on a blackish appearance, and a large portion of the integument and muscle sloughed away, leaving a deep cavity. After this the pain ceased, and the wound remained stationary for some months, when it again became gangrenous; and he died August 12th.

Examined the leg with Mr. Lowne fourteen hours after death.—The right foot black, with slough upon the instep, and the whole inner side of the leg. The femoral artery contained various thin patches of bony deposit, and its caliber in some places was diminished. The popliteal was filled with coagulum, which at the lower part was dense, white, and firmly adherent to the artery. The anterior tibial was studded with numerous patches of ossific deposit, which in some places extended around the artery, and almost obliterated its canal. The lining membrane of the posterior tibial was in many places bony, and its lower portion nearly obliterated by a hard, white, fibrinous substance, which appeared organised: this was within an inch of the gangrenous part.

The pain in this case was very severe at first, but it subsided after a few weeks.

The treatment consisted in hot fomentations to the leg, and yeast poultices, with opium, at bedtime.

The arteries taken from the three last-mentioned patients are now in my possession, and may be seen by any member of the profession.

The late Mr. Bryant, of Kennington, was kind enough to furnish me with the following cases, which occurred under his care:—

In April, 1833, I attended Thomas Raugher, ætat. 78, when labouring under gangrene of the foot and leg. It commenced with slight discoloration of the foot, which gradually spread upwards, nearly as high as the middle of the leg, still showing a disposition to extend its boundaries; nothing like a line of separation between the dead and living parts being produced, although his powers were attempted to be sustained by nourishment, and the part excited to a healthy reparative action, by local stimuli; notwithstanding all, however, after the lapse of a fortnight, he became the subject of tetanus, and died.

On examining the limb, the femoral artery, throughout its extent, and the popliteal, to its division into the anterior and posterior tibial, were found plugged with adhesive matter, which in many parts was soft, and broken down, as if undergoing a suppurative action; the serous lining of the artery throughout its extent bearing all the characters of inflammation, if redness (quite a vermilion colour) can be considered to describe that state.

I know not whether others have seen tetanus supervene, or gangrene connected with such a state of vessel, but it has happened in three or four cases in my own practice to find such the termination of the case.

The second case is the one from which the preparation was taken which I exhibited at the London Medical Society.

It occurred to a man in the middle period of life, who became suddenly the subject of gangrene of the foot and leg, not preceded by pain or inflammatory flush, but the part became discoloured, as in the other case, gradually extending, in spite of all that was done for him. The knee-joint became implicated, which produced so aggravated a state of constitutional irritation, as to destroy him.

The cause of mortification in this case was by no means obvious, although, from the manner in which it proceeded, I had but little doubt but obstruction existed to the supply of blood. On examination, this opinion was confirmed; the femoral artery was filled with adhesive matter, and the serous lining extremely red.

Mr. Linnecar, of Aldermanbury, has favoured me with the following case, which he alluded to, some time since, at the London Medical Society.

J. J., sixty years of age, in descending a flight of stairs, struck the ends of two fingers against the story-post, which produced the sensation of numbness, but did not prevent him from going to his usual employment, that of foreman to a carrier. Three or four days after the receipt of the blow I saw him, and found the hand swelled, fingers livid, and very painful; no pulsation in either of the arteries of the forearm, but just above the bifurcation the pulsation was clearly felt in the brachial artery. On visiting him next day, I found the top joints of the fingers black and shrivelled: in a few days the thumb and the whole of the fingers, with the greater part of the hand, mortified. The usual remedies were used, but without avail; the man dying in about a month from the occurrence of the injury.

The body was examined by Mr. Stanley and assistants. The arteries of the arm were carefully examined, but no diseased appearance could be detected, with the exception of a few points of bony matter at the bifurcation of the brachial artery. *A small cord of fibrinous substance occupied the cavities of the ulnar and radial arteries*, but by no means obstructing the passage of the blood through them. The heart was apparently healthy; but a large pouch was formed in the aorta, at about the commencement of the arch. The liver was much diseased, being nearly all converted into a brain-like substance. A stricture was also found in the transverse arch of the colon, which would barely admit the top of the little finger.

I had been frequently in the habit of seeing this man, and feeling his pulse in the right arm (the arm affected), therefore the absence of pulsation must have been produced by the blow. The arm would have been amputated, had his general health been better. The post-mortem fully justified the course adopted.

I am indebted to Mr. Adams, of Broad-street, formerly dresser to Mr. Green, St. Thomas's Hospital, for the following case

(which I have considerably abbreviated). It is interesting, as showing the similarity of gangrene produced by ligature, and the same disease when the result of arteritis from violence.

William Connor, ætat. 45, a strong, healthy countryman, was operated upon by Mr. Green, Sept. 5, 1834, for popliteal aneurism. On opening the sheath of the femoral vessels, a small artery was divided, which bled very freely, and it became necessary to enlarge the opening in the sheath to secure it. Mr. G. thought it prudent to employ two ligatures, and divide between them. Soon after the operation, the temperature of the leg and foot was much reduced.

On the 6th the foot presented a livid appearance, with loss of sensation; frequent pain in the leg, of a pricking and darting character.

7. The foot shrivelled; there are several purple spots on the surface; the veins turgid, and when emptied are slow in refilling; two broad blue stripes extending up the leg.

8. Slight sensation about two inches above the malleolus, increasing towards the tumour; the skin over which is so sensible, that the slightest touch produces excruciating pain.

10. The foot and leg present the appearance of a limb which had been in the dissecting-room for some time.

15. The leg almost black on the outer side, with numerous vesications; complains of a great deal of pain at one time, and at another is quite easy.

16. Sensation extends only to about the middle of the leg.

18. The mortification having spread during the night, and there being much swelling, heat, and redness above the knee, amputation of the upper part of the thigh was performed; *no satisfactory examination was made of the leg;* has gone on well.

Dec. 2. Stump quite healed; health good.

The treatment in this case consisted of nourishing diet, porter, opium, and ammonia, with poultices to the leg.

Mr. Bottomley, of Croydon, has furnished me with the following:—

Mary Mathews, aged 39, was confined February 8, 1838. Her general health during pregnancy was good, till within two months of her confinement, when she became subject to cough and great general debility, the probable result of cold, and the want of proper nutriment, she being only able to procure animal food once a-week, and then only a small quantity of bacon.

Her labour was expeditious: the child being diminutive, died twenty days after its birth. The mother continued to do well for ten days, when she became the subject of pleuritis, for which she was bled, leeched, and blistered, and recovered from the attack very speedily; but a few days after she complained of a severe pain in the heel, taking a course towards the great toe. External appearance healthy; warmth of surface natural. Presuming it to be a severe neuralgic affection, the veratrine ointment was pretty plentifully applied; internally large doses of the acetate of morphia; fomentations, and a variety of external means, were used without benefit. After several weeks of suffering, a livid spot appeared on the inferior part of one of the toes; the temperature of the foot at the same time became gradually reduced, accompanied with diminished sensibility. The pain increased, and sensibility diminished; the livid spots increased in numbers, and became larger, till all the toes were perfectly black, and this went on till the foot and ankle became involved in the mortification. A line of demarcation was well defined about two inches above the ankle-joint. During this process she was well supplied with wine, beer, meat, &c.

Her health suffered so much, that the removal of the limb was deferred for some time; and it was not till the 2nd of May that her health was so far restored as to allow of the operation being performed.

Although the line was well defined (only two inches above the ankle-joint), the calf of the leg being tumefied and rather painful, and also as the cause of disease was constitutional, it was deemed advisable to amputate the limb above the knee. After its removal, upon seeing the vessels, *both femoral artery and vein were found completely plugged* with semi-cartilaginous, transparent, elastic substance. By way of security, a ligature was put upon the femoral artery, the stump dressed with but faint hopes of success. Upon the removal of the first application, adhesive inflammation had taken place at the angles: the integument and parts around the femur sloughed, denuding the end of the bone. After a few weeks a healthy action was set up, and it now became necessary to remove a still further portion of the femur, by taking away some of the unhealthy soft parts, and passing a long double-edged bistoury round the bone, retracting the integuments so as to saw off about an inch and a half. The integuments were again brought over the end of the bone, and the stump healed almost immediately. The patient quite recovered, and at this moment is in perfect health.

In addition to the foregoing, I might mention several related by Dupuytren,* Tosse,† Londe, Andral, and other French pathologists. A very interesting communication upon this subject is contained in the third volume of the "Medico-Chirurgical Transactions of Edinburgh," by Mr. J. W. Turner. Thirteen cases are related of absence of

* Leçons Orales, &c.

† Mélanges de Chirurgie Pratique.

pulse in the extremities from plugged arteries; some arose from violence, and several occurred spontaneously: the first bears much resemblance to Mary Champion. It occurred in a gentleman, 40 years of age. On the eighteenth day, after violent pain, pulsation ceased in the leg, and the twenty-second day in the arm; the former became gangrenous. The patient died, and on examination the arteries of the arm and leg were found to be impervious, being plugged by fibrinous coagula.

Mr. Solly, in the "Medico-Chirurgical Transactions" for 1839 and 1840, has recorded an extraordinary case of dry gangrene occurring in a child only three years old. The little patient lost the arms and legs, by spontaneous amputation, after eight months' suffering; the child, although apparently going on favourably for a few months, died. The four cavities of the heart, the primitive trunks, and the arch of the aorta, were filled with coagulated blood of a dark colour. Mr. Solly states, that "he is at a loss to account for the cause of the gangrene, there being little or no alteration in the arteries."

Mr. Bury, who first examined the child, says, "both femoral *arteries were remarkably shrunk, being obviously much less in caliber* than their veins, very pale, and *were not patulous* on division with the knife."

Mr. Liston, in a clinical lecture (LANCET, 1835), mentions a case of dry gangrene of the arm, with non-pulsation of the axillary artery.

John Hunter, in his work on the Blood (p. 27), relates a case of gangrene of the foot and leg which terminated fatally. The iliac and crural arteries were found filled with "strong coagulated blood."

In Dr. G. Burrows' Croonian Lectures (published in the "Medical Gazette"), two cases of gangrene of the foot occurring in St. Bartholomew's Hospital are related. In one, the femoral and iliac arteries were diminished in their caliber, and contained white fibrinous coagula. In the other case, coagula were found in the femoral and popliteal arteries, the former vessel was contracted, and its internal coat wrinkled.

Mr. Clarke, of Devizes, in the 19th volume of the same publication, has related a case of dry gangrene of the foot and leg, which he supposed to originate from disease of the heart; but the plugged state of the arteries, as well as the previous pain along their course, with absence of pulsation, I think clearly point out the existence of arteritis.

I could have abstracted many similar cases from the works of various authors, but the above are sufficient; and I will now go on to consider the causes, symptoms, and treatment of the disease. That these deposits of fibrine in the arteries are in many cases the result of inflammation, I think there is abundant evidence. When the deposit is situated (as *in nearly all the cases I have related*) high above the gangrenous parts, as well as in the contiguous vessels, the artery contracted and its inner coat corrugated, I believe the existence of inflammation is clearly proved. It may, I think, be laid down as an established fact, that blood will not coagulate in a healthy artery.

John Hunter, in speaking of the case before alluded to, says—"We may thence infer that the tendency to mortification in the vessels produced this disposition in the blood, if the coagulation should have been supposed to have arisen from the blood being stopped in the large vessels at the mortified part. Let us reflect that this cannot account for it; the same thing *ought then to happen in amputation, or in any case where the larger vessels are tied up.*" He adds, afterwards, that "rest does not of itself at least assist the coagulation of the blood."

That bony deposit alone is sufficient to produce the disease, the innumerable cases of ossified arteries in old people fully disprove. How common an occurrence is it to find the arteries of the extremities converted into bony cylinders, and how comparatively rare is the disease in question. I am inclined, however, to believe, that the ossific deposit may often act as the exciting cause of inflammation, in consequence of the inner membrane of the artery (which in *these cases* is extremely *brittle*) becoming partially detached, perhaps from a slight blow, or from increased muscular action. The great toe (where the disease so often commences) being particularly exposed to both these causes. This opinion is further strengthened by several cases of arteritis and gangrene, which have followed the rupture of the serous coat of the vessel from external injury.

Morgagni* says, that "persons subject to gout and rheumatism are most liable to be affected with the disease;" and this opinion has been confirmed by Pott and other writers. In addition to the above, many of the predisposing and exciting causes of inflammation in general may be enumerated. The old are much more subject to the disease than the young, but the cases among the latter are far from unfrequent.

Dr. Carswell† says, "It is stated by some pathologists that this form of mortification sometimes occurs in young persons, and is much more frequently met with in males than in females. The former statement we believe to be an error originating in an imperfect knowledge of this disease; for *as we have ourselves never seen it in young persons*, and as this statement has not been supported by other than mere negative facts, and these, too, very incomplete, we must

* De Sedibus et Causis Morborum.

† Dr. Carswell, "Cyclopædia of Practical Medicine."

continue to *regard it as a disease peculiar to persons advanced in life, and occasioned by morbid states of the arterial system, which occur only in such persons, at least to such an extent as to produce local death.*"

The cases which I referred to, however, completely invalidate this assertion. I can scarcely suppose that functional disturbance of the ganglial nerves can have any effect in producing the disease, those afflicted with brainular and nervous lesions not being more liable to the malady. The ossific condition of the vessels throughout the system before mentioned, also tends to show how little the function of the arteries is *directly* affected by nervous influence.

The symptoms of this affection vary somewhat according to the age of the patient; the disease in the young and middle-aged being generally of an acute character, and more diffused; there is also at the commencement great constitutional disturbance, with heat of skin, quick pulse, and disposition to fainting; acute pain along the course of the affected vessels, increased on pressure; this succeeded by absence of pulsation some distance above the gangrenous parts. *The throbbing of the arteries mentioned by some writers I have not met with.*

In the old the disease is more circumscribed, slower in its progress, and attended with less constitutional disturbance. "The gangrene, in the great majority of cases," says Pott,* "is frequently preceded by great uneasiness, and those subject to flying pains in the feet are more liable to it." *In all the patients which I have seen, the gangrene has been preceded by acute pains, which greatly subsided towards the termination of the disease.* There are some cases recorded, however, where pain has been absent.

If I am correct in my views respecting the proximate cause of the disease, the curative measures must in the first stage be directed to the subduing of the inflammatory action. This, in the young and plethoric, can best be effected by the use of the lancet, or the application of leeches along the course of the arteries; hot fomentations will, I believe, also be found serviceable. Opium I think the most important of the internal remedies. In the second stage, the use of a nourishing diet, with tonics, may be had recourse to. With respect to depletion in the aged (where the disease is of a more subacute character), my experience does not enable me to offer an opinion. Dupuytren,† however, says, "that after abandoning the stimulating treatment, and pursuing the antiphlogistic, he was enabled to relieve and cure three-fourths of his patients." Pott gave bark a fair trial, and came to the conclusion that it was entirely useless. He thought highly of opium, and preferred soothing applications to stimulant.

The propriety of amputation (I speak only of the young) must be left to the discretion of the surgeon. The three cases which I have recorded show that it may succeed under very disadvantageous circumstances. In my own patient many prognosticated an unfavourable result, and wished to dissuade me from the attempt.

I must now bring this imperfect sketch to a conclusion; my object has been to show, 1st, that dry gangrene is not a disease confined to old people; 2nd, that it is *generally* the result of arteritis of an acute or chronic character, producing coagulation of the blood, deposits of fibrine, and consequent obstruction to the circulation; and, lastly, that the stimulating treatment, so frequently pursued in the first stage of the disease, is highly injurious.

Since the above was written, a communication upon this subject, by Professor Syme, has appeared in the first number of the "Edinburgh Monthly Journal of Medical Science." I am pleased to find that his views respecting the treatment of this disease are similar to my own. He mentions the case of a woman who laboured under dry gangrene of the foot: for the first week she was treated in the usual manner; all stimulants were then withdrawn, and a strictly farinaceous diet enjoined, with water for drink, and a simple poultice to the foot. The sores healed kindly, and presented on each side of the foot a no less seemly cicatrix, than if a skilful amputation had been performed. The starving plan was then abandoned; and the poor old woman, after subsisting on bread and water for upwards of four months, was allowed the usual diet of the hospital.

Mr. S. says, "I have uniformly observed that, whether the patient was stimulated by an additional allowance of food and wine, or was permitted merely to continue his ordinary diet, the sloughing action prevailed in opposition to every sort of soothing application that could be tried locally; but when the starving plan was adopted, and the patient restricted to vegetable articles of support, the redness has quickly disappeared, the pain has gradually decreased, and the sloughs, ceasing to extend, have been detached from a subjacent healing surface of granulation, which before long formed a sound cicatrix. The only means employed on such occasions, in addition to the vegetable regimen, have been linseed poultices; and the muriate of morphia given freely, either solid or in solution, so long as the nocturnal pains continued. It may be added, that no inconvenience has ever been sustained, to my knowledge, either from adopting the spare system, or resuming the ordinary one, even when the age of the patient was beyond eighty years."

---

* On Dry Gangrene. † Leçons Orales.

REPORT ON THE MORTALITY OF LUNATICS.

By WILLIAM FARR, Esq., F.S.S.

(Read before the Statistical Society of London, 15th March, 1841.)

THIS report, which has been drawn up at the request of the council of the society, is founded on the reports of the Hanwell Asylum, returns from the Bethlem Hospital, and the valuable series of tables submitted to the society last year by Colonel Sykes. It was thought desirable that the mortality of lunatics in two of the largest public institutions of the country, should be compared with the mortality in the licensed proprietary houses; and that, if the mortality differed, the differences should be investigated, and traced to their causes, by the methods of statistical analysis which we now possess.

The condition of lunatics in this country has, within the present century, attracted much public attention; and in 1807, 1815, 1816, and 1827, the management of the asylums provided for their confinement was investigated by committees of the House of Commons. Many abuses were brought to light; and the last committee, of which Mr. Gordon was chairman, stated in their report, after a searching and able inquiry, that the abuses discovered in 1815 still existed. They "repeated, adopted, and confirmed" the recommendations of the committees of 1807 and 1815. Enactments subsequently passed the Legislature; and several county asylums (among which that of Middlesex deserves to be particularly mentioned) have since been erected. No Parliamentary inquiry has been instituted since 1827; but Mr. Ewart has given notice of his intention to move in the House of Commons for the appointment of a committee in the present session of Parliament.

The persons of unsound mind in England amount to several thousands. They are usually of middle age, frequently parents, and are of all conditions and ranks of life: 494 lunatics confined under the Crown possess property yielding an income of 317,164*l.** While men of the highest intellectual rank—men of genius—are not exempted from the visitations of this disease, it stoops to the lowest, and disorders the meanest brain. It makes the labourer a pauper, and too often ruins the families of the middle classes. 6402 idiots and 7265 lunatics have been returned to Parliament as paupers. A disease which disorders the senses, perverts the reason, and breaks up the passions in wild confusion,—which assails man in his essential nature, brings down so much misery on the head of its victims, and is productive of so much social evil,—deserves investigation on its own merits, by statistical as well as other methods. But it has an additional claim upon the attention of the society. A considerable portion of the insane are under confinement, and have to be provided for or watched over by the State; which, as it permits them to be deprived of liberty, is bound to afford them protection, and to assure them the best means of restoration to health.

Great improvements have taken place in the treatment of lunatics. In the best asylums they are no longer shut up in cells like wild beasts, nor punished by harsh keepers. Their chains have gradually been struck off. A further step has been attempted. At the Middlesex asylum no strait-waistcoats, straps, or other instruments of personal coercion have been used since the 21st of September, 1839. The experiment was first tried at Lincoln, and it is now contended by persons of experience, ability, and integrity—by Mr. Hill, Dr. Conolly, and the visiting justices of Middlesex,—that in a house properly built, with skilful medical supervision, and a sufficient number of humane and intelligent keepers, personal coercion should be abolished. This is denied by other gentlemen of equal humanity, who maintain that although all restraint *may* be dispensed with, the strait-waistcoat should still be employed as a remedy in the paroxysms of mania. A keen controversy has been waged on the subject. Asylums not only differ widely in the extent to which restraint is carried, but in the space allotted to patients, in their employment, food, and medical treatment. The cost of criminal lunatics at Bethlem is 15s. a-week; of idiots or lunatics in the workhouses, 2s. 10d. to 3s. 6d. a-week. Some of the asylums are under the control of the visiting justices, others are visited by the metropolitan commissioners; the hospitals of Bethlem and St. Luke are not visited at all, but are managed by the officers and governors; while a very large number of lunatics are farmed out, or confined in workhouses, by the parish authorities.

Amidst these various circumstances and conflicting systems, we ask which is the most advantageous? and it will be replied by all parties, "that is the best system under which the greatest number of lunatics recover their reason in the shortest time." But in a slow disease, presenting so much diversity in individuals, it is evident that the superiority of any system of treatment can only be determined by the average results, by a comparison of the recoveries and deaths, in fine, by statistics; and the Statistical Society, as a body quite disinterested, is probably better qualified than any other society to collect information upon the subject, and to submit the results to the public,

* See Parliamentary Return, Session 1839, No. 378.

to the parties concerned, and to those humane persons who devote attention to a class of our fellow-creatures suffering under one of the saddest calamities which can befal our nature.

The number of lunatics and dangerous idiots under confinement in Middlesex, and in the parts of Surrey and Kent within the jurisdiction of the metropolitan commission, is about 3110, and the following was their distribution in 1839:—

	Males.	Females.	Total.
In the Asylum at Hanwell	346	488	834
Bethlem Hospital ..	148	151	299*
St. Luke's	104	136	240
Guy's	..	24	24
34 licensed houses .	787	926	1713
Total.....	1385	1725	3110

459 men and 419 women in the licensed houses are not paupers; and many persons insane in different degrees remain at home under the care of their friends. The London workhouses contain a considerable number of idiots and lunatics. Exclusive of these, 3110 persons are confined as lunatics in the public institutions of the metropolis. When it is considered that insanity is a long disease, which not only disables the patient, but often renders him difficult to control, and dangerous to himself and to society, the fact that 7 in 10 of the 3110 lunatics fall upon the public for support and treatment, will not be deemed surprising.

The Hanwell Asylum was opened on May 16th, 1831, and the number of lunatics admitted in the 9¼ years, ending September 30th, 1840, as shown in the following table, was 2029; the number discharged was 1171; of whom 449 had recovered, 66 had been relieved, and 656 had died: 858 remained in the asylum.† More than *half* the patients die in Hanwell, and more than *one-third* are cured:—

		Men.	Women.	Total.
Admitted from 16th March, 1831, to 30th Sept. 1840 ..		1013	1016	2029
Discharged during the same period, viz.—	Cured....	223	226	449
	Relieved..	42	24	66
	Died	374	282	656
Total.....		639	532	1171
Remaining on 30th September, 1840		374	484	858
Proportion in 100 of patients discharged, viz.—				
Cured		35.	42.	38.
Relieved		7.	5.	6.
Died.....		58.	53.	56.

It has been a question whether the deaths should be divided, as in this case, by the 2029 patients admitted, or by the 1171 discharged, in order to obtain the mortality of the cases. It is evident that the latter is the true divisor; for, if the mortality remained the same, the probability is, that the 858 patients *to be discharged* would, *cæteris paribus*, be discharged cured, relieved, and dead, in the same proportions as the 1171 already discharged.

The average number of lunatics in the Hanwell Asylum, since it was opened, has been about 589, or 250 males and 339 females. Subjoined is a table of nine annual enumerations, with which I have been favoured by Dr. Conolly:—

PATIENTS REMAINING IN THE HOUSE ON 31ST DECEMBER.

Years.	Males.	Females.	Total.
1831	111	143	254
1832	217	279	496
1833	237	321	558
1834	245	322	567
1835	260	344	604
1836	262	348	610
1837	255	338	593
1838	321	470	791
1839	346	488	834

The deaths in the 9¼ years ending 30th September, 1840, were 656 (males 374, females 282); and the insane population out of which they occurred was = 5498 living one year; the males 2334, and females 3164. The average number of males resident was = 250, and 250 × 9·34 years, the term of residence, = 2334 years of life. The *annual mortality* of the men was 16 per cent., of the women 9 per cent.,

* Exclusive of 16 on leave.

† Visiting Justices' Report, p. 22. In p. 18, the number of deaths is stated to have been 664.

and of the whole population, without distinction of sex, 12 per cent.

What is the mean term of residence in the Middlesex Asylum?—This is not given in the Visiting Justices' Report, but it may be deduced from the numbers living, and the numbers discharged. Divide the 5498 years of residence by 1171, and the result is 4·48 years; which is an approximation to the average term of treatment. This is shown in the following table:—

	Lunatics Discharged.	Years of Residence.	Mean Time of Treatment.
			Years.
Males..	639	2334	3.65
Females	532	3164	5.95
Total..	1171	5498	4.48

From this and the preceding table it will be observed, that nearly equal numbers of men and women are admitted at the County Asylum (males 1013, females 1016); but that the number of women resident is 36 per cent. greater than the number of men (females 339, males 250); because women remain there about six years on an average, and men nearly 3·7 years. The men are discharged more rapidly than the women, both by death and recovery. Eleven men per cent. were annually discharged cured, or relieved, and only eight women. This distinction will explain many anomalous facts; and it should always be taken into account in estimating the prevalence of diseases. Thus, there may be ten times as many lunatics in civilised, as in barbarous countries and times; not because the tendency to insanity is greater, but because the lunatics live ten times as many months, or years. The tendency to insanity in a class is expressed by the proportion that become insane.

Let us now compare the facts observed in the Hanwell Asylum with those submitted to the society by Colonel Sykes, relative to the lunatics in the licensed houses within the jurisdiction of the metropolitan commission. Colonel Sykes's returns have been analysed according to the same methods.

	Total Number Discharged.	Discharged as Cured, or otherwise.	Died.	Deaths in 100 Cases.
Licensed Houses, from 11th August, 1832, to 31st May, 1839.....	5747	4021	1726	30.
Hanwell Asylum, from 16th May, 1831, to 30th September, 1840	1171	515	656	56.

The deaths to 100 *cases* were more numerous at Hanwell than at the licensed houses; but, in the *annual mortality* per cent., the proportions were reversed.

	Years of Residence.	Died.	Annual Mortality per Cent.
Licensed Houses, from 30th June, 1833, to 31st May, 1839.....	9671	1504	15.5
Hanwell, from 16th May, 1831, to 30th September, 1840.....	5498	656	11.9

The annual mortality per cent. at Hanwell was to that in the licensed houses as 100 to 130. For various reasons the patients remain longer in the Hanwell Asylum than in the licensed houses, from which 37 per cent. were annually discharged alive; while 9.4 per cent. were discharged annually, cured and relieved, from the County Asylum. The number admitted during the six years, June 1833-39, into the licensed houses was 5386; making 278 more than 5108, the number discharged by death, recovery, or otherwise. There were 1435 in the licensed houses on 30th June, 1833, and 1713 on 31st May, 1839. The number of inmates had increased 19 per cent., and, notwithstanding the erection of Hanwell, the increase bore principally upon paupers, for 202 of the 278 were paupers.

MEAN TERM OF RESIDENCE.

	Years of Residence.	Numbers Discharged.	Mean Term of Treatment.
			Years.
Hanwell (1831-40)	5498	1171	4.48
Licensed Houses (June, 1833-9)	9671	5108	1.89

The lunatics in the licensed houses are divided into two classes—paupers, and other patients belonging to the independent classes of society. It will be right to compare the paupers in the licensed houses with the paupers in Hanwell, and, for this purpose, to separate the paupers from the other class.

The Licensed Houses—6 Years, June, 1833-39.

	Paupers.	Others.
Admitted	2939	2447
Discharged	2737	2371
Died	947	557
Years of Residence	4580	5090

The comparative mortality was as follows:—

	Annual Mortality per Cent.	Deaths out of 100 Cases Discharged.	Mean Term of Treatment, in Years.
Paupers in Licensed Houses	21	35	1.67
„ Hanwell	12	56	4.48
Other Patients in the Licensed Houses	11	23	2.15

The annual mortality of paupers in the licensed houses is thus shown to have been excessive.

I proceed to compare the mortality of the male and female paupers at Hanwell and in the licensed houses, with that of the other class of lunatics:—

IN THE LICENSED HOUSES, JUNE, 1833-39.

	Paupers.		Others.	
	Men.	Women.	Men.	Women.
Admitted	1419	1520	1419	1028
Discharged	1343	1394	1365	1006
Died	504	443	353	204
Years of Residence	1882	2698	2677	2414

From these facts the following results have been deduced:—

	Annual Mortality per Cent.		Deaths out of 100 Cases Discharged.		Mean Term of Residence, in Years.	
	Males.	Females.	Males.	Females.	Males.	Females.
Licensed Houses:—						
Pauper Lunatics	26.8	16.4	37.5	31.8	1.40	1.93
Other Lunatics	13.2	8.4	25.9	20.3	1.96	2.41
Hanwell	16.0	8.9	58.5	53.0	3.65	5.94

It will be observed that the annual mortality of both male and female paupers in the licensed houses was *nearly twice as great as the mortality of paupers at Hanwell, and twice as great as the mortality of other lunatics in the licensed houses.*

Pauper lunatics were received at six licensed houses during the term over which Colonel Sykes's returns extend, and at the four houses numbered 18, 32, 33, 35, during the whole period. A small number of paupers was treated at No. 2, until May, 1837, and after that year at No. 12; the great majority, however, of pauper lunatics was treated at the four large houses; and although 1156 other lunatics were treated there, with 2563 paupers, the mortality was *twice as high* as in the 36 smaller houses.

LICENSED HOUSES.

No. of House.	Years of Residence.	DISCHARGED.				
		Paupers.		Other Lunatics.		Total.
		Cured, &c.	Died.	Cured, &c.	Died.	Discharged.
18	1571	317	206	142	49	714
32 (M.)	1467	369	198	256	122	945
33 (F.)	1635	371	187	199	48	805
35	1687	594	311	268	82	1255
4 Houses ..	6360	1651	902	865	301	3719
36 „	3311	139	45	959	256	1389

Each of the four large houses contained 265 patients on an average, and the annual mortality was 19 per cent.; in the small houses, containing 17 lunatics on an average, the mortality was 9 per cent., and the annual mortality in the four houses increased with the number of lunatics. It was 16 per cent. in the house No. 18; 18 per cent. in Nos. 32 and 33; and 23 per cent. in No. 35. Of the higher class of patients, 26 in 100 cases perished in the large houses, and 21 in 100 in the smaller houses, where the term of treatment was somewhat longer.

What is the mortality among lunatics in favourable circumstances? Is insanity a fatal disease?—Upon the latter question there has been a considerable diversity of opinion. Some lunatics live to an advanced age. Of 213 admitted by Dr. Conolly at Hanwell, 15 were aged 60 and upwards; one was between 75 and 80; and 58 in 753 at Hanwell had been labouring under the disorder between twenty and fifty years. In 1835 an action (Fisher v. Beaumont) was brought at the York assizes, to recover from the Providence Assurance Company 2000*l.*, insured upon the life of the Rev. Mr. F——. In charging the jury, the judge said that they had to consider whether insanity had a tendency to shorten life? If insanity had such a tendency, they must find for the defendant; if not, for the plaintiff. The medical evidence was conflicting; and the jury found for the plaintiff, on the ground that insanity had no tendency to shorten life!

We have no means of ascertaining the mortality of lunatics at large; but the mortality of lunatics in asylums is much higher than the mortality of the general population, and the excess cannot be ascribed entirely, although it may partially, to the confinement, the unwholesomeness, or the usages of mad-houses. The mean age of lunatics in asylums is about 35-40. The average age of the patients admitted at Bethlem (1830-34) was 36 years (36.2); and the mean age of 213 admitted at Hanwell by Dr. Conolly was 36½. The mortality at the age 30-40 is 1.2, and at 40-50 is 1.5 per cent. in England and Wales. In cities the mortality at a corresponding age is not more than 2 per cent. annually. Now the annual mortality at Bethlem, where dangerous cases are carefully excluded, was 9 per cent. in 1827-39. At Gloucester, one of the county asylums, at which the treatment is the most successful, the diet is generous and nutritious, and the patients live as much as possible in the open air—the annual mortality is 7 per cent.

The annual mortality of severe cases of insanity cannot, I think, in favourable circumstances, be less than 6 per cent.; so that the mortality is three times greater among lunatics than among the general population, at the same age. We have seen, however, that the annual mortality among the better class of patients in the licensed houses was 11 per cent.; among paupers at Hanwell, 12 per cent.; among paupers in the licensed houses, 21 per cent.; and among pauper men at one licensed house, 27 per cent.; as high as the rate of mortality experienced by the British troops upon the western coast of Africa, and by the population of London when the plague rendered its habitations desolate!

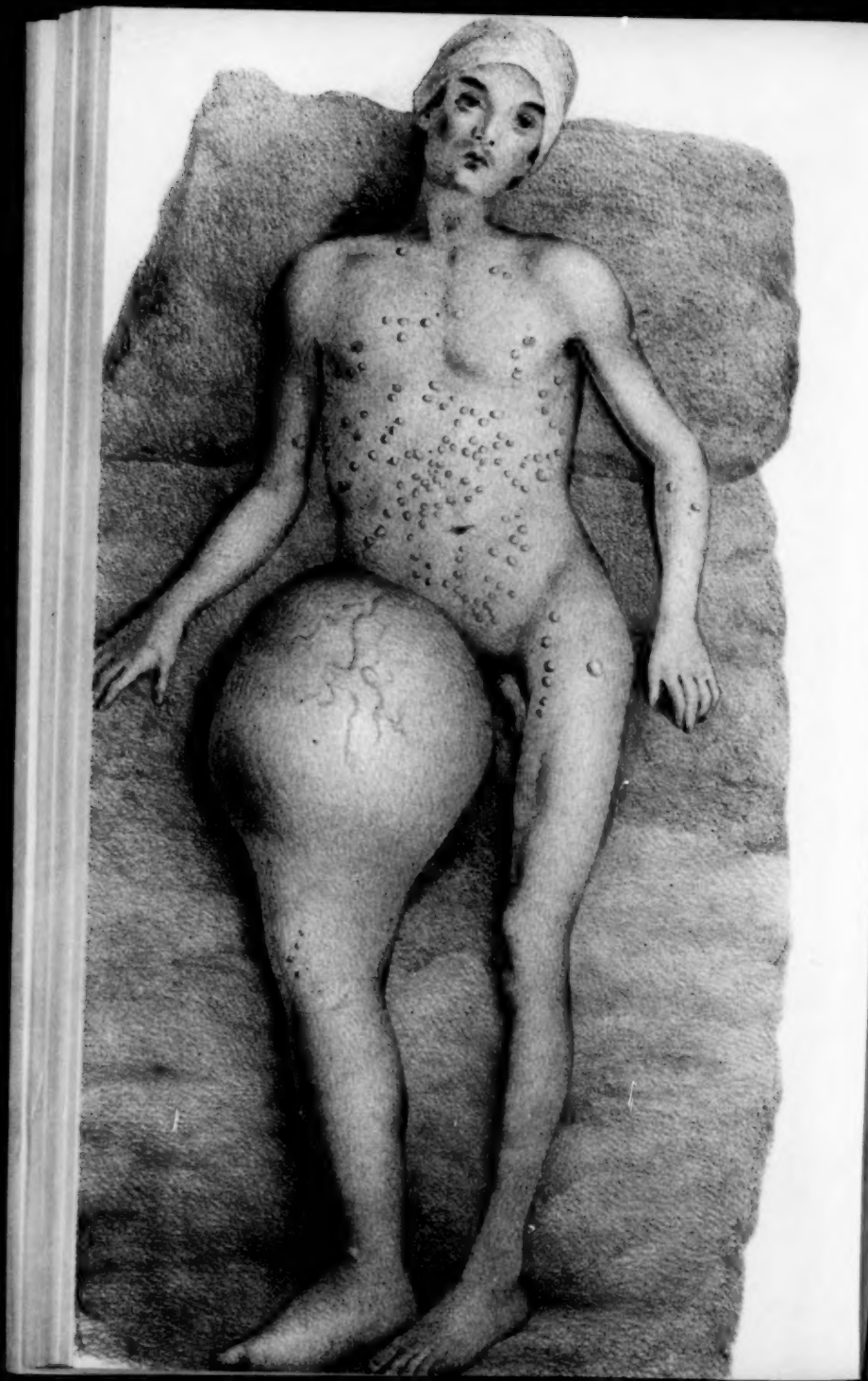
(*To be continued.*)

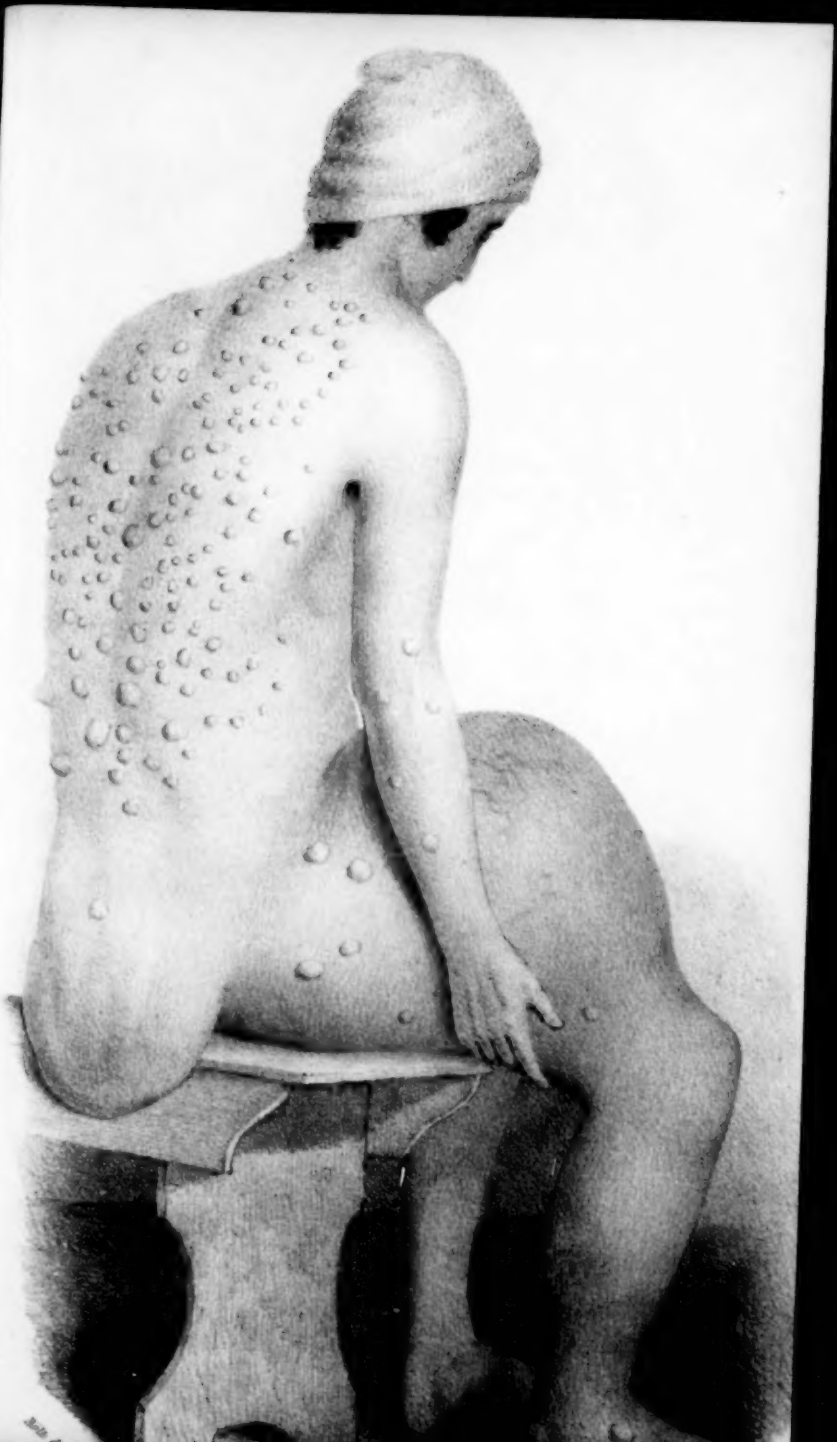
CLINICAL LECTURE
ON
MOLLUSCUM,
DELIVERED AT
THE WESTMINSTER HOSPITAL.

By Frederick Hale Thomson, Esq.

Gentlemen:—I am induced to call your attention to-day to the subject of molluscum, in consequence of the remarkable case we have so recently had in the hospital. The subject of it, John Latham, æt. 36, of a leucophlegmatic temperament, was admitted October 10, 1839, having a species of molluscum all over his body, with a most extraordinary wallet-like development of the integuments, extending from the middle of the lumbar region to below the nates. He stated that, as long as he could remember, he had always had the same tumours, and his older sister says that he was born with them. By his own account he was a healthy, temperate man, and had industriously followed his work as coach-painter, until a few weeks previous to his admission into the hospital, when, for the first time, he observed a tumour on the inner and upper part of the right thigh, about the size of a small egg, the origin of which he was totally unable to account for, never having had a blow, fall, or any injury likely to produce it: it did not occasion him any pain for many weeks, although at times it throbbed violently and felt hot. It went on gradually increasing till he became alarmed at its size, which was about that of a half-quartern loaf, and he was induced to apply for relief. On his admission, he was ordered an ointment, composed of iodide of mercury, 3ss to ℥j of lard. He rubbed this over the tumour for a fortnight, at the same time taking an opiate occasionally: this producing no effect, Mr. Lynn recommended the use of a liniment, composed of ℥ij turpentine and ℥iij of sulphuric acid; this was employed upwards of a month without the slightest benefit. The tumour gradually increased in size so as to prevent his walking out, which he had hitherto been able to do without inconvenience. After eight months' residence in the hospital, the tumour assumed very much the appearance of fungus hæmatodes, becoming nodulated in its form, and having distended veins traversing its surface; œdema of the leg and foot was also produced, in consequence of retarded circulation. From the rapid growth of the tumour he now experienced considerable pain in the knee and ankle, which continued at intervals until his death. The molluscum generally covering the body had exhibited no variation in size or colour during his confinement in the hospital; and the gradual development of the tumour, with the absence of all constitutional derangement to within twenty-four hours of dissolution, rendered the case devoid of any peculiar interest, except from the extraordinary appearance it presented, which is accurately delineated in this drawing. The tumour on the thigh extended from the crest of the ilium to within four inches of the knee-joint. The day before his death he was attacked with a fit resembling epilepsy, in which he remained for more than an hour. After a brief consciousness, a succession of shivering fits rapidly followed; the pupils became contracted; the pulse 50, and very feeble; great irritability, with excessive pain in the tumour, was manifest from the low moaning, and his constantly rubbing the part with his hand. About two hours before death, the tumour presented a very black appearance, the veins becoming immensely distended, which seemed to increase the suffering, and he died in the greatest agony.

At a post-mortem examination, an incision was made from about six inches above the crest of the ilium to the knee. On dissecting through the integuments the tumour was easily removed, having but partial adhesions to the femur at its upper part. The glands in the groin were perfectly healthy. The femoral artery ran down the inner side of the tumour, and the profunda perforated it. The rectus muscle was thrown to the outer side, and the periosteum came freely from the bone with the tumour, to the extent of about an inch and a half, commencing from the little trochanter. The tumour weighed about twenty-five pounds; and on being cut into, was found to be a remarkably fine specimen of what Mr. Kiernan denominates albuminous sarcoma. Upon opening the chest, the heart and lungs were found perfectly healthy, as were the contents of the abdomen, with the exception of the spleen, which was a little enlarged. The dewlap at the posterior part of the body appeared to consist entirely of condensed cellular membranes; but the tumours covering the body, although unconnected with anything but the skin, were of the same albuminous character as that on the thigh. In all cases of molluscum hitherto recorded, as far as I have been able to ascertain, I know of none classed under the term of albuminous molluscum, though this case would certainly be accurately described by that name. There are, in the museum of Guy's Hospital, two casts of specimens of molluscum very much resembling Latham's case; indeed, one of them seems to have been the very counterpart of it, although no history is preserved; yet the brief notes accompanying the case mention that the man had attained eighty years of age. In him, however, the molluscum was not congenital, the first tumour having formed upon the forehead in his eighth or ninth year; but in other respects this case is precisely similar. At the time the model was taken, there was a pendulous, wallet-like tumour on the nates, weighing a bout sixteen pounds; and also a





tumour as large as a melon on the back of the neck, which, having been injured, bled considerably. Like Latham's, also, no part of the body was exempt from the disease, and, as in his case, the tumours on the limbs were generally the smallest. Molluscum is not a subject that has been very much noticed by the medical writers of this country. Dr. Willan and Dr. Bateman have alluded to two cases which came under their own observation; but the profession are highly indebted to Dr. Jacobovics, of Pesth, for an epitome of all that has been published upon molluscum, both here and on the continent. He distinguishes the disease into three kinds, which he names as follows:—

1st. Tubercula fungosa.
2nd. Tubercula atheromatosa.
3rd. Tubercula variegata.

He passes in review all the scanty information which the archives of medicine convey upon this subject, and exercises much discrimination in classifying under the several heads, he has adopted, the individual instances which are recorded. In the department of tubercula fungosa, he includes the "tumours gemmeuses, et ulcéres endemique de Bontius." This disease is characterised by tumours at first hard and scirrhous, which are developed upon the face, hands, and legs, and which cover the entire body in a great number, like so many warts or corns. When these tumours suppurate, there proceeds from them a thick and acrid matter, and deeply-excavated ulcers with callous, and overhanging edges are the result. These ulcers have a dirty aspect, resembling venereal sores; with this difference, that they do not occasion acute pain, nor caries of the bones. Tilésius has described the celebrated case of Reinhardt, born at Muhlberg in 1742. This patient was born with his body covered with excrescences. "When he was submitted," says Tilésius, "to my inspection, his skin bristled with excrescences, of which the size varied from that of a pea to that of a pigeon's egg; their form was variable, sometimes wart-like, sometimes oval and irregular at various points, or flattened by the pressure of the clothing or the weight of the body in sitting or lying. In many places, but especially about the thighs and knees, they formed agglomerated and salient masses. But the most remarkable of the tumours was one situated on the epigastrium, in the form of a wallet; it hung from the skin which covered the xyphoid cartilage, and reached to the level of the umbilicus. Its flaccidity was much greater than that of the others.

The greater number of these tubercles were of a reddish colour; but here and there was seen one of a yellow or reddish brown: all projected considerably from the skin, which was rugose, and of a dirty and earthy tint; their consistence was spongy and soft. In the centre of some of the largest was seen a small hole, whence could be squeezed out small, blackish, and vermieform bodies, of which the whitish radicals penetrated deep in the skin. In the furrows and wrinkles which existed at the base of the tumours, a sweat mixed with sordid matters concreted, which, in the exacerbation of the malady, gave to the skin a disgusting aspect, and threw out a strong and fœtid odour. All these tumours were of slow growth.

This singular affection was farther remarkable, in that it regularly every month produced an exacerbation upon certain points; but this increase was most remarkable in the wallet-like tumour at the pit of the stomach. A troublesome pruritus attended this, which compelled the patient to scratch himself: the action of the fingers produced an exudation of acrid and fœtid humour, which soon concreted. When these crusts fell off, the excrescence returned to its primitive state, until the return of the paroxysm.

Baron Alibert treats of the fungous tubercles under the name of mycosis. He treats of three sorts: 1st, the mycosis frambaisé, or the frambœsia of nosographists; 2nd, the mycosis syphiloide, which is identical with sivvens of the Scotch; 3rd, mycosis fongoide, called by Bateman molluscum, by Bontius la Vèrole d'Amboyne, and by the ancients le Therminte. Alibert confirms the characters given to this last affection by Bontius. He describes two principal stages in the course of this malady; the first of which he names la crudité, in which the tubercles are hard and dry; and the other, the ramollissement, in which they suppurate and ulcerate. The patient, whose name was Lucas, described by Alibert as affected with this malady, was very much emaciated, and was affected simultaneously with lieuteria, and a voracious appetite. He was carried off by hectic fever.

Speaking of the causes of mycosis in general, Baron Alibert says, that negro and mulatto children have a particular tendency to this disease, and it is oftener found in children than in adults and old people.

M. Rayer, in his works, speaks of the genus molluscum in the chapter on cancer and he calls it cancer mollusciformæ. He relates a case which had the principal characters of the disease, as described by Bontius. There were severe lancinating pains in the tubercles. The lymphatic glands adjoining the right breast, the principal seat of the disease, became hard and enlarged, and extending into the axilla, compressed the axillary artery, and diminished the force of the pulse in that arm. The abdomen was large, and was affected with lancinating and deep-seated pains. This patient was finally affected with a severe epistaxis, and died from exhaustion, in the Hospital La Charité. An autopsy of this woman was made seventeen hours after death. The tubercles were unequally distributed through the integuments of the body: they were of a bluish

violet colour, and some were of the same colour as the skin. On the posterior part of the thorax existed two large, prominent, unequal, fungiform tumours. The first stratum of these tumours, that nearest the epidermis, was of a yellowish colour, and approaching to the organic transformation called scirrhous: again, a deeper layer was formed by the hypertrophied corium. In fact, this alteration of the teguments in its first stage, and in the smallest tubercles, seemed to consist of circumscribed hypertrophies; whilst in the more voluminous tumours, the superficial layers of the corium presented an uniform yellow tint, semi-transparent, and analogous to scirrhous. The stomach presented in its coats a number of tubercles, similar to those on the surface. These tubercles were the size of hazel-nuts. When incised, the first layer was found to be formed by the mucous membrane much hypertrophied; a second, of cellular submucous tissue indurated; and a third, by the muscular membrane hypertrophied, and more red than in the normal state, and a fourth layer of the unaltered peritonæum.

Biett, Cazenave, Schedel, and Gibert, describe nearly similar growths to that mentioned by M. Tilésius. Some instances are recorded in which the patients lived to be old, without having their health affected; but a general character of the larger tumours, as well as tubercles, was, that they exuded a sero-purulent matter of an offensive quality.

Dr. Jacobovics examines all these tumours in relation to, 1st, their form; 2nd, their situation; 3rd, their duration; 4th, their causes. With regard to their causes, M. Jacobovics enters into an ingenious, but fantastical, dissertation of no practical value whatever. In respect to the contagious nature of this disease, the small number of cases to be found on record do not afford sufficient data to generalise upon. The diagnosis of molluscum is not difficult. In elephantiasis, the immense thickening of the cuticle, and the consequent insensibility of the surface, render it perfectly distinct from molluscum.

Syphilitic excrescences have their situation at the apertures of the mucous membranes, and their size and extent are much less than is the case in molluscum. Other syphilitic tubercles follow all the phases of the malady, of which they are symptomatic, and their ulceration is not preceded by hypertrophy. The particular form of framboesia, and the narrow space in which it is circumscribed, distinguish it plainly from molluscum. The atheromatous or contagious tubercles are much smaller than the cellulo-fungous, and are generally situated on the face and neck: they are colourless, containing a lactescent fluid, which oozes out under pressure. The fungous tubercles, on the contrary, are solid, voluminous, and are the seat of a viscid and fœtid secretion upon their surface. Whether atheromatous tumours are variegated, is not stated in any memoir extant.

M. Jacobovics describes the third kind of molluscum, the "tubercula variegata," as having fallen under his own observation. It was at the age of thirty-seven, about seven years after the disappearance of the venereal symptoms which had previously affected him, that the patient perceived certain yellowish spots develop themselves upon his neck and throat: they were roundish, from two to three lines in diameter, and elevated themselves soon above the surface of the skin; and showed under the thin epidermis by which they were covered, some whitish points; at the same time, at the bend of the elbow, reddish tubercles. During the summer, a slight itching was perceptible over the affected surface; but it abated in the winter, although the anatomic lesions continued to make progress, which, though slow, was still appreciable. Three years afterwards, domestic affliction affected the malady unfavourably. From that time he saw the spots extending themselves, cover his throat, chest, and back, pass the level of the dermis, and form small tumours, roundish and irregular, of which some preserved the yellowish-white colour. Others reddened, and surrounded themselves with a circle of small crusts: others, again, presented a blackish, livid colour, and a slight desquamation on the surface. The patient continued thirteen years without consulting a medical man. Since the year 1833, the tubercles had been more thickly deposited. He had taken the decoction of fumarea baths, simple and vaporous; and the proto-ioduret of iron was administered without effect. At this time his general health had become affected. At the roots of the hair of his head, yellow spots were visible, which threw off small scales of the same colour. On the temples, yellowish tubercles are visible, which are squamous on their surface; and these scales are removed by scratching. Above the zygomatic arch are bright rose-coloured elevations, as large as pin's-heads. On the synciput are seen a few brownish tubercles, as large as peas. The entire face is tawny, from the effect of the sun's rays. The skin is unequal, without being wrinkled. The orifices of the sebaceous follicles are very apparent on the forehead and ala nasi. The remainder of the face is covered with spots of dirty yellow, as large as peas. The throat and thorax present the same deviations from the normal state as the face does. In the middle of the throat, from the thyroid cartilage to the sternum, the orifices of the sebaceous follicles are developed above the natural size; and from these, little indurated concretions project, semi-transparent, and of the size of millet-seeds. In the thoracic region are found agglomerations of tubercles, of all sorts and colours; bluish, yellowish, greenish, and blackish. The unaffected part of the skin is white and thin,

Amongst the other varieties of tubercles are found yellow ones with white apexes, and of various sizes. From certain of these tubercles a vivid itching is experienced, which prompts the patient to scratch himself. The excoriations resulting from this, occasion the exudation of a sero-purulent matter, which in drying forms a small crust. No part of the body or limbs, except the genital organs, is exempt from these tubercles; but some of the kinds abound in some regions more than in others: thus the blackish prevail over the dorsal, and the white-pointed yellow over the sternal region.

Natural History of the Tubercles.

1. Nearly all the tubercles, begun by a whitish-yellow or brownish spot, circular, and of the size from that of a millet-seed to that of a pea, not projecting, having a white spot in the centre, and no hair. These spots, in the more advanced period, are intermixed with the other alteration of the skin; but they are seen isolated in groups round the most developed tubercles.

2. Other spots differ from the first kind, just noticed, by the projection of their centre above the level of the skin; farther, instead of one central point, they present three or four, circular, of unequal diameter, and forming little islets, of a dirty-white colour, in the middle of the brown tint of the remainder of the spot.

3. In the progress of their development these spots are transformed into true tubercles, of various shapes and sizes. The fine epidermis which covers them exhibits, through its transparency, the brownish-yellow colour of the tubercle, which receives a variegated appearance, from the dissemination of a great number of white points upon a brownish ground. The contents of these, when punctured, proved of a sebaceous character.

4. Another form of tubercle was distinguished from the preceding by the furrows which divided the surface, and which gave it a lobular aspect. They were flaccid, and had a bluish base, sprinkled with white points.

5. Along the vertebral column were remarked oval and rounded tumours, of one or two lines in diameter, and sometimes larger, and of a blackish colour, but having no white points. The epidermis covering these was furrowed; they were isolated and hard.

6. The preceding tubercles grew gradually drier and harder; and terminated by changing into a blackish scab, of which the surface was cracked, into small and regular polygons. These tubercles are not indolent, like the preceding. Their pricking is much more painful than that of the yellow tubercles, and blood slowly ecchymoses round the pricking part.

7. The tubercles, covered with crusts, in scabs, are analogous to those of impetigo, but more regular; they are adherent to their periphery, free, and hollowed in their centre, which is filled and elevated by a purulent matter, which the tubercular shell secretes.

8. There were yet other crusts, which arose from the immediate desiccation of the brownish-yellow tubercles. They were roundish, two or three lines in diameter, and a quarter of a line in elevation. These regular yellowish-green crusts were dry and smooth. They were very adherent, and formed a network; their centre was but slightly prominent, and their edges were gradually lost in the surrounding skin.

9. The fleshy tubercles were excrescences of a round, oval form, having two or three lines diameter. Their borders projected about half a line, but the centre two or three lines. Their surface was of a vivid red; smooth, shining, and covered with a thin and tightened epidermis, which after a time exfoliated. They are isolated, and abruptly raised, from the surrounding skin, where their point of implantation is marked by small, yellowish-green crusts, of the size of pin's-heads.

10. Another form of tubercle, of from three to six lines in diameter, of half a line in elevation, presented a bluish-grey colour, without any white points; a depressed centre, and salient borders, of a vivid red colour. They were large, flat, and irregularly circular. The skin around the base of these tubercles had contracted a certain degree of inflammation, and was indented in the numerous chaps, from which flowed sero-purulent matter, which concreted, and formed little crusts of the size of poppy-seeds.

11. Little spots of a vivid red colour, of various volume, from the circumference of a pea to that of a millet-seed, perfectly isolated, and in small numbers, were disseminated over the hairy scalp, the chest, and the back. They projected a little, and were not rendered pale by pressure. From the large ones, when pricked, there flowed a few drops of blood, but their size and colour were not thereby changed.

The eleven varieties of cutaneous change which have just been described, constitute the appearances which Dr. Jacobovics observed in a case which fell under his care, and which he would class under a new head of molluscum, which he calls the "tubercula Bigarré."

The general character of molluscum, according to M. Jacobovics, is as follows:—

"Congenital tubercles, hereditary or acquired, more or less numerous, of variable volume, from that of a pea to that of a small melon; sometimes round, sometimes oval; as often flattened; irregular; ordinarily sessile; rarely pedunculated. They may preserve the colour of the skin, but often present a red-brown, yellowish-brown, bluish-black colour. Their surface may be smooth or mammillated; dry or humid; sometimes

scabby; as often firm as soft, solid or atheromatous. They remain sometimes stationary; in other instances they inflame and suppurate. The general health mostly remains unaffected, unless a great number of the tubercles suppurate, in which case it is more or less seriously affected. This eruptive disease is rarely limited to a small extent of skin, is essentially chronic, and may continue a long time."

Of the seat of the malady he says:—

First. The fungous tubercles are situated in the dermial cellular tissue.

Second. He cannot determine the site of the atheromatous, from the incompleteness of the evidence we possess.

Third. In the variegated form the epidermis remains normal; it is in the chorion beneath it that the alteration is first effected; but when the brown tint is assumed, the epidermis participates in the lesion which previously seems to have affected the sebaceous follicles. The reddish spots are extravasations of blood under the epidermis, and the tubercles consist of an alteration in the superficial stratum of the true skin.

EPIDEMIC OF TYPHUS FEVER IN YORKSHIRE.

By JOHN S. HILEY, M.B.

UPWARDS of five-and-twenty years have elapsed since typhus fever visited, in a serious form, this and the surrounding districts. During the whole of last summer, and for a while prior, isolated cases of this affection occasionally made their appearance; which, as the late winter approached, not only increased in numbers, but also in malignity. Bradford, Halifax, and Huddersfield, together with most of the adjacent villages, during the period specified, have suffered severely; nor has it confined its ravages entirely to the cottage of the poor man, but it has also entered the habitations of the wealthy. In this point of view we may apply to the present epidemic an elegant passage, which Horace has given in his fourth most beautiful ode:—

"Pallida mors æquo pulsat pede pauperum tabernas.
Regumque turres. O beati sexti
Vitæ summa brevis spem nos vetat inchoare longam."

Inasmuch as the prevailing disease has many peculiarities characteristic of itself, I have thought it would not be altogether useless to offer to the readers of THE LANCET some remarks respecting it. Previous, however, to doing so, it will be advisable to make a few observations as to its probable origin, and also as to the cause of its great malignity. In accomplishing this object, I shall notice in succession the seasons of the year in which it has prevailed, and the circumstances of those upon whom it has been most severe. By adopting this step, I hope to be enabled to throw more light upon it, and also to aid society in guarding, in some measure, against future visitations of this kind.

In remarking on the seasons, it can scarcely have escaped observation, that they have been, in the highest degree, regular, so far, at least, as the last year was concerned; and, as a consequence, their products have proved exceedingly plentiful. It cannot, however, on the other hand, be denied, that the two or three years previous were uncommonly wet, and unsuited for the ripening of the grain; hence, rendering the latter not only dear, but deficient in quality. The few last winters have proved extremely cold, the thermometer, in certain localities, sinking lower than it had been known to do since 1812. The present winter has rarely been surpassed in this respect. We have had two heavy falls of snow, each of which remained on the ground upwards of four weeks. These were accompanied with the most rigorous weather, especially during the night, so that liquids of almost every description were frozen in a few minutes. In the bed-rooms of the most comfortable habitations, the thermometer often descended below twenty degrees. In short, the winter has been long and severe; and it might have been expected that this circumstance, co-operating with the open state of the weather, would have tended to ameliorate the severity of typhus. Such, nevertheless, has not been the case; for in this neighbourhood, at least, the patients of practitioners, labouring under typhus, have exhibited disagreeable symptoms as repeatedly in frosty as in close and foggy weather. We are to consider this, perhaps, as one of the peculiarities of the disease about which I am now writing. With respect to the condition of those who have suffered, a great deal more may be said.

It cannot be denied, though typhus in the present instance has found its victims both in the humbler and higher walks of life, that it has been most fatal amongst the former. The reason of this is obvious; but still there are a variety of circumstances to be enlarged upon, in order that such fatality may be avoided by the rising generation. It would be a difficult task, though not entirely out of place, to point out positively the origin of the present epidemic in this island; but we are not so completely beaten, that we cannot say something as to its source in our own immediate neighbourhood.

Prior to the commencement of the railway, I believe, we were tolerably, if not completely, free from typhus, and had been so for some time. With this vast undertaking great distress arose from stagnation in trade,

The times have never been so bad in the memories of the oldest individuals with whom I have spoken. This is a woollen district; and it is well known that this department of manufacture, from a great variety of causes, has suffered exceedingly. Such, then, as had been improvident in better times, were now reduced to almost the lowest extremity of want; and, badly clothed, but worse fed, were glad to betake themselves to any occupation which presented itself. The railway offered plenty of work and high wages; and it is agreed on all hands, that had it not been for this fortunate event, the distress in this and the adjoining parishes would have been infinitely more severe. Men, once respectable in trade, were glad to take on with any method of obtaining a livelihood; and those whose pride it was once to stand behind the counter, or sit in the loom, were now seen mining in the tunnels, or digging in the open cuttings. Here they associated with men from every portion of the British empire; and inasmuch as it was amongst the latter that typhus made its first appearance, we may conclude that the disease was imported by them from other neighbourhoods. Irishmen, fresh from the capital of the Emerald Isle, where typhus is ever rife, were in the ranks of these workmen.

The source, &c. of the disease under consideration being thus satisfactorily explained, I will now inquire into the cause of its malignity, &c.

The first point which comes before our notice, in connection with this division of our subject, is the extreme poverty which has predominated for many months, in fact, for more than two years, in consequence of a failure in the woollen manufacture, &c. The effects of this depression upon the situation and morals of the poorer inhabitants, it is almost impossible to depict. Improvident, as they often are, in the times of abundance, it cannot be supposed that they were prepared to encounter a season of dearth. Provisions also, such as flour, meal, meat, sugar, tea, &c., were running higher in price, so as to place them beyond the reach of their pecuniary means. By-and-bye, the effect of this state of things upon their personal appearance manifested itself; instead of ruddy health, they were now haunted with sickness, and each succeeding day betrayed more plainly how starvation got hold upon them. As time rolled on their clothing began to fail, without any great prospect of securing its renewal. In their turn, deficiency of clothing and food were succeeded by want of cleanliness; and probably this last was more evident than anything else; for where I was accustomed to behold neatness of person and habits, I now observed great inattention to both.

Hundreds, who were hitherto in the habit of living comfortably on their own earnings, were now compelled to seek relief from the parish; and it is an astounding fact, that the relieving officer of this township of Elland-cum-Greetland, who, on entering upon his office, was called upon to distribute eighteen pounds, within a certain space of time, in out-door relief, is now obliged to pay forty pounds in the same period. The immense increase, too, in the amount of poor-rates, which has latterly taken place, is a general source of uneasiness and complaint. My own rates have been doubled during the last six months. Such a state of things cannot fail to have operated, in a peculiar manner, upon the health of the inhabitants of this and the surrounding parishes, rendering them liable to take any epidemic which might be reposing in, or wandering through, the country. Minds, once noble and independent, were broken down, and rendered torpid by the pressure of distress; and many instances of insanity, apparently originating from this cause, have been recorded. In fine, anguish of mind, together with want of clothing and food, appear to have been the great agents by which typhus has been disseminated, and by which it attained that malignity which now almost invariably accompanies it. Amongst those, too, who, by drinking and riotous living, had injured their constitutions, the typhus, now that they became divested of the necessaries of life, was dreadfully severe, attacking whole families in its track, and generally bringing one or more of their members to an untimely grave. Hence the labourers on the railway, who often earned and spent five pounds in a fortnight, were in the number of its most common victims. From the railway labourer, as I have before stated, it passed to the inhabitants amongst whom they resided, and hence throughout the country.

But before I conclude this division of my subject, I must not forget again to remind my readers, that there were amongst the railway people many Irishmen, who had recently arrived from their native island, no doubt bringing along with them the seeds of a distemper, which always prevails, more or less, in that country; and this is rendered more probable by the fact, that many of the cases which I have witnessed, bore a strict resemblance to those which I was accustomed to look upon, when a pupil at Sir Patrick Dun's Hospital. Here, too, they occasionally assumed that low character, marked with spots, and denominated putrescent.

The symptoms of the malady are peculiarly interesting, and worthy of our consideration, since they have presented many anomalies, with which it is well for the medical world to be acquainted; and, perhaps no other epidemic has borne out the lumi

nous views of Dr. G. Fordyce so satisfactorily, for we may say of it what he has said of fever generally; and, since the passage ought to be in the remembrance of every physician, we will venture to quote it:—"A fever," says this great writer, "is a disease which affects the whole system. It affects the head, the trunk of the body, and the extremities. It affects the circulation, the absorption, and the nervous system. It affects the skin, the muscular fibres, and the membranes. It affects the body, and likewise the mind. It is, therefore, in every sense, a disease of the whole system."

The exciting cause of the present epidemic is usually cold, caught by exposure, in some way or other. The bad results, however, of this have seldom been perceived immediately; but in general a few days elapsed, perhaps three or four, before the poor sufferer had cause to complain. At this time the patient would speak of chilliness, a perfect inability to keep himself warm, and a desire of creeping towards the fire. These symptoms, together with sore mouth, slight thirst, and impaired appetite, included every thing that one could observe. By-and-bye, headach set in, with general soreness of the bones, as though the patient had been subjected to a sound beating; together with sickness of the stomach, and a hot skin. At this time there was perfect sleeplessness; and in many cases the tongue would appear clean and moist, sometimes red, and wet with thick saliva; and the pulse would be regular, and if at all varying from a healthy one, it was in being rather slower. In numerous instances it was particularly slow, perhaps about sixty in the minute, or even less.

Few local pains, strictly speaking, accompanied this stage of the disorder, the patient usually protesting that he felt perfectly well, with the exception of feeling a soreness over his bones. On being questioned intimately, you could get none but one answer, viz., that he was sore, and had lost his appetite. Sometimes he would look stupidly at you, and promised to get up, as he was certain that such a step would mend him. What with the regularity of the pulse, and the apparent absence of any bad symptoms, it would have been difficult, under ordinary circumstances, to have discovered the nature of the ailment; and many medical men, not aware of its character, would have pronounced it perfectly simple, and free from danger. Such, however, would have been but dangerous practice; for a great variety of cases of this sort, which have recently come under my care, have gone to show that beneath these apparently unimportant signs, a most noxious malady was reposing, ready to arouse itself at the first opportunity, and bear with all its virulence upon any one, or all, of the three great cavities of the body—the head, the chest, or the abdomen.

Symptoms like the above, after continuing for three or four days, were succeeded by others of a more obvious kind, and which at once developed the nature of the affection. These were, increased restlessness and thirst; tongue more furred, and dry; pulse somewhat accelerated; skin hotter; languor and stupor; and, in many instances, a very bad state of the intestinal canal. Together with the above, I have repeatedly noticed a great predisposition to pneumonia, as indicated by dyspnœa, cough, and pneumonic sputa, with the stethoscopic signs of dull percussion, puerile respiration, and crepitus râle. Such was not the accompaniment of all the cases; nevertheless, in those where it did present itself, there was a great deal to dread. The profuse expectoration which always attended the pneumonia, together with the racking and continued cough, tended to debilitate very considerably the constitution, which was hourly becoming weaker, from other and equally urgent causes. Thus the system often sunk under the weakness generated at this stage. If the patient was not haunted by pneumonia, in all probability the brain was severely affected. The stupor, after continuing for two, three, or four days, verged into low, muttering delirium, or furious madness. From this last there was the greatest possible danger; for, even under the most cautious exhibition of remedies, the system gave way in the course of a very few hours.

In these circumstances I have always had much trouble in procuring the slightest repose for the patient; for even when the delirium was absent, and the intellect clearer, and better aware of what was going on around it, during these short intervals, there was infinitely more restlessness and suffering. The eyes now became glassy and suffused, and the countenance altogether assumed the appearances which are so characteristic of typhus. Laxity of the bowels is another troublesome accompaniment of the prevailing epidemic. The evacuations are not only foul and unnatural, but often associated with much blood; and they may be entirely composed of blood.

I found it exceedingly difficult to manage symptoms of this kind; and, providing they are not met and obviated by the most active measures, they are too often attended with fatal consequences. Considerable tenderness of the abdomen, with tympanitis, may prevail, and occasionally severe cramps. The purging can sometimes be traced to certain medicines, which may have been administered with quite a different intention. Thus, I have seen an effervescing draught occasion a diarrhœa, which it required all my care to check. Many practitioners may doubt the validity of this re-

mark, but it has happened too repeatedly in my practice to question it for a moment. The quantity of blood, &c. voided under these circumstances, is often enormous; and we are much surprised how the system ever recovers from the debility occasioned by discharges of this nature.

In the course of my remarks on the treatment of the diarrhœa, I shall have occasion to show how troublesome it is to restrain. Deafness is likewise another symptom; as is also a singing tone of the voice. During the convalescence large boils and ulcers often break out over different parts of the body. This stage is usually tedious, and phthisical symptoms now and then manifest themselves.

Should the case be one of an aggravated character, or should it terminate in the demise of the patient, death is usually preceded by cramps, hiccough, subsultus tendinum, and all the other host of symptoms which generally accompany an unfortunate case of typhus gravior.

Having now completed the history of the symptoms, &c. of this extraordinary affection, I will now direct my attention to its treatment; and be it remembered, that an attack, so treacherous as the one under consideration, required more than ordinary caution in its management. It was a remark of the great Sydenham, I believe, that when any new malady made its appearance in the country, he usually experienced great difficulty in devising the best treatment; and he often lost a few cases before he could satisfy himself as to the nature and kind of complaint which he had to combat. And, I dare say, that since the present typhus manifested itself, there are few practitioners in this neighbourhood who have not laboured under similar difficulties; for it is held by all the medical gentlemen with whom I have spoken, to have been both fatal and anomalous.

In country practice, a medical man is either called early to a sick person, or after the party has been suffering a short time, perhaps a week or ten days. This, of course, arises from the circumstances and condition of the patient. Should he be well to do in the world, there will be no delay, but should it be otherwise, the attack will have gotten a strong hold before any assistance is summoned. In the first instance, you may probably succeed in checking it, by having recourse to a general bleeding; by the administration of an emetic, composed of one scruple of ipecacuanha, with a single grain of tartrate of antimony; and, after the lapse of a couple of hours, when the stomach is settled, by the exhibition of a purgative bolus, consisting of jalap and calomel, or of rhubarb and calomel.

The operation of the bolus is to be promoted by the occasional administration of a draught of infusion of senna and sulphate of magnesia, or of an infusion of purging flax with the same salt, commencing with this in two hours after the bolus has been swallowed. If the bolus be taken at bedtime, the mixture need not be resorted to until the following morning. Should, however, the attack not yield to this treatment, or should the practitioner not have been summoned till a more advanced stage, other measures must be adopted. The weak state of the pulse, the general debility of the patient from previous bad living, together with the apparent typhoid character of the complaint, and the length of time to which, in all probability, it will run, would seem, with justice, to preclude the idea of a general venesection. In fact, for one case which I have seen do well after bleeding at this period, I have observed many to do extremely ill. The practice of Dr. Macintosh ought now to be carefully studied, as it is in such instances as these where the student, from a slight and cursory perusal of his writings, might be induced to adopt measures which that celebrated and successful practitioner never intended to inculcate. It is one of the characteristics of this fever to run the full length usually assigned to typhus; and hence the bleeding, which was intended to relieve the system, will, if not resorted to with great discretion, only tend to weaken it. I now speak from much personal experience, having attended many cases of this kind during the last nine months, probably more than any other single individual in this extensive parish.

Bleeding, however, has one powerful effect; viz., that of developing at once the sort of malady under which the patient is suffering. Prior to bleeding, you may have had some difficulty in recognising the complaint. Little or no pain in the head; very slight thirst; tongue but slightly furred, and moistened with thick saliva; tolerably regular state of the bowels; slow pulse; together with great languor, soreness of the bones, stupidity of the countenance, a somewhat dry and hot skin, and a sort of all-overishness which the patient invariably mentions, constituting the entire of the attack. You are induced to open a vein, under the idea that the system is oppressed, and the circulation impeded: after which operation, in the course of a very short time, the fever becomes fully developed, and any uneasiness which you may have felt as to the nature of the ailment is at once set to rest. The system, however, under this treatment, is often debilitated; and it is only with the greatest care, and the most judicious administration of your after-remedies, that it can recover. After the bowels have been once freely opened, the treatment should be of a different kind; for, in all likelihood, the repeated exhibition of purgative medicines will be succeeded by a laxity of the intestinal canal, which it will require

all your judgment to check; and which, if not checked, will be attended with the worst results. The best plan, in the management of the bowels, is to produce one or two easy evacuations daily, by the use of rhubarb and calomel.

I am anxious to impress upon the minds of physicians the absolute necessity of guarding against a lax state of the bowels, for it is one of the most fatal symptoms of the prevailing epidemic. With respect to its treatment, when it is once fairly set in, you are to have recourse to such astringents as your knowledge of the disease may warrant. The chalk mixture is one of pretty general application; and I am happy to say that I have seen it, with a Dover's powder at bedtime, followed with the best consequences. Enemata may be given with benefit. Since, however, the purging is often the result of some irritation, or, probably, some inflammatory action in the alimentary canal, and is repeatedly attended with copious discharges of blood, it occasionally happens that it cannot be subdued by internal remedies at all. You must then have recourse to external applications; such as fomentations of poppy-heads and chamomile, bran poultices, mustard plasters, and blisters. Leeches will occasionally precede one or other of these applications, and with very sensible relief to the poor sufferer.

I have already stated that the disease often fixes itself on the lungs, being then attended with dyspnœa, mucous crepitus, pneumonic sputa, and a severe hacking cough. As the pneumonia gives way, it is succeeded by profuse expectoration. These symptoms are often very long in yielding to any measures, and in the end sometimes run into phthisis. When, however, subjected to treatment, they are best resisted by leeches, blisters, and the use of tartar emetic ointment to the chest. The blisters may be kept discharging by the aid of savine ointment. I am of opinion, nevertheless, that it is best not to let one and the same blister discharge too long in this way: I prefer, after the lapse of a few days, healing it up, and afterwards, if requisite, applying a fresh one. Should the cough become chronic, a warm plaster will be found of great utility. I have rarely seen much good result from medicines taken internally, with an intent to relieve these symptoms. When the chest is not much affected, or even the reverse, we have severe symptoms in the head: headach, eyes suffused, stupidity, intolerance of light, and noise; delirium, high or muttering, &c. All these are fraught with extreme danger, and they must be met by very active means; and as, in all such cases, moderate bleeding with leeches is desirable, I would offer a few remarks on the practice. I have seldom witnessed any affection where the bleeding from leech-bites was more profuse; and accordingly, if care be not taken, the blood may ooze away to such an extent, as to produce incalculable and irremediable mischief. I have been an eye-witness to one or two cases of this sort; but, in fact, in every instance of typhus, as well as in most other diseases which I have seen this winter, where it was considered advisable to apply leeches, I have observed a disposition to bleed. A long time often elapses before sufficient coagula form to close the leech-bites; and they will, if not stopped, bleed night and day successively. A moderate bleeding having been effected, it is then best to trust to the repeated application of blisters. Shaving the head must invariably be adopted; and the patient will be much refreshed by the continued application to the temples of cloths moistened with vinegar and water, and by repeatedly sponging the hands and face with the same mixture. Blisters may be applied to the nape of the neck, to the scalp, or behind the ears, either at one and the same time, or consecutively. Should coma supervene, mustard boots to the feet will be found of great benefit; and if not applied, a bottle of hot water should supply their place.

Such, then, is the particular treatment, if the expression may be allowed, of the prevailing epidemic; and I must now make a few observations as to its general management. It was before stated that the bowels ought to be kept regular; and providing the fever should not be subdued by the different methods already laid down, it will be well, nay it will be essential, to set up a mercurial to counteract the febrile action. My readers, however, must not suppose that I have deferred until now all allusion to this ancient and hallowed custom of salivating, because I am unacquainted with its influence. I revere the practice; and I am perfectly aware that in the management of typhus there are many very skilful physicians, and otherwise amiable men, who look upon no other remedy with so much confidence as mercury. Its exhibition, however, very often proves abortive here; and when such is the case, I am sorry to observe that the patient very rarely, if ever, recovers. Sometimes the mouth is a long time in becoming affected; and from numerous observations, curious as it may appear, I am induced to be of opinion, that in most diseases which have visited this neighbourhood during the last twelve months, where mercury was had recourse to, practitioners have encountered some difficulty in effecting the desired object. When, however, this can be accomplished within a reasonable time, and with a moderate quantity of that agent, either taken internally or applied externally in the form of ointment, the best results may be expected to ensue. The evacuations are improved; the tongue, from being furred over with dry black matter, becomes moist and nearly clean; and what is more, all the

other symptoms undergo a material alteration. The patient obtains more refreshing rest; whilst the thirst, which is usually a very urgent symptom, through all the stages of the complaint, in a great measure subsides. The practitioner must mind he is not led astray by the appearance of the tongue: it is not always furred: it is repeatedly as red as a raw beef-steak, and probably no other symptom is more indicative of inflammation of the mucous membrane of the bowels. The papillæ are erected. Great thirst, with tympanitic distention, is often present. In such cases, turpentine injections will be found serviceable: opiates, as Dover's powder, may be given. The inflammation, however, does not usually abate until external applications, such as I have before alluded to, have been employed. Whilst all this is going on, the physician, if he judge it advisable, may administer saline draughts in a state of effervescence. In many instances these will be found admirable remedies; but when there is a disposition to diarrhœa, they are to be strictly avoided. In such cases they oftener do harm than good. Camphor julep is a good medicine: this affords to the system a slight refreshing stimulus. Where the skin was very hot and dry, and where there was much fever, I have found the liquor ammoniæ acetatis of great use. The convalescence will be much promoted by the exhibition of light, nourishing diet; but since the cough is often long in yielding to any treatment, and since the fever is very liable to be re-excited, great care must be observed in the administration of wine or cordials. When given, they are to be strictly watched, inasmuch as they are often followed by disagreeable symptoms. In relieving the thirst, they will be found beneficial; and wherever stimulants are required, the cardiac mixture, as exhibited by Drs. Osborne and Law at Sir P. Dun's Hospital, cannot be too highly extolled. Through all the stages of the complaint, cleanliness and the ventilation of the sick wards are most essential.

Elland, near Halifax,
April 7, 1841.

PHYSIOLOGY OF THE LUNGS, AND PATHOLOGY OF PNEUMONIA.

To the Editor of THE LANCET.

SIR:—If the following strictures on Dr. Thomas Williams's views relative to the "minute pathology of pneumonia," as expressed in a late Number of your Journal, be deemed worthy of insertion, they are at your service. I am your obedient servant,

J. S. WATERHOUSE, M.R.C.S.

Sheffield, April 7, 1841.

The generally-received opinion with regard to the vascular structure of the lungs is, that it is of a twofold character; one order of vessels being a part of the "greater system," and intended to supply the air-tubes and cells with the medium of nutrition; the other being a distinct system, termed the lesser circulation, whose office it is to expose the venous blood to the aerating influence of the atmosphere: the peculiarity of the latter is no less observable in the structure of the vessels than in the character of their contents. Dr. Williams, however, conceives that the bronchial arteries from their small size are incompetent to the task which physiologists assign them; and that the pulmonary arteries are, in reality, the source whence the material of nutrition is derived. To ascertain the fact, he has had recourse to experiments. He injected the bronchial arteries, and found that their ramifications were confined to the roots of the lungs, and did not extend, "in visible form, much farther than the larger divisions of the bronchi." I would observe *in limine*, and with all deference to Dr. W., that we shall want more evidence to set the matter at rest; and, moreover, when men have a *penchant* for any peculiar hypothesis, we are apt to take all they say *cum grano salis*; for we frequently find that their previous opinions and the results of their experiments tally, and that there is a felicitous, yet marvellous, adaptation of the one to the other: they discover so much as suits their purpose—no more. Dr. Williams allows that, on "close examination, they may be traced to *some* distance." "Some" is a very indefinite word; but I will attempt to define it by saying, that they may be traced on the mucous lining of the air-tubes with the naked eye, so long as the tube itself is visible. This I have repeatedly observed in the lungs of the lower animals; and there exists no probable reason why there should be a difference in man. Dr. W., unfortunately for his argument, seizes hold of the analogy of other organs in support of his opinions. He observes, "if it were a law of general operation in the economy that the secreting function of every viscus and the nutrition of its parenchyma required for their performance independent systems of vessels, other organs than the lungs ought to present us with illustrations. The examples of the liver, kidney, and spleen, teach that the union of two functions in one set of vessels is quite consistent with the proper execution of both." Now, we find that the liver is the perfect analogue of the lungs, has two sets of vessels, and a similar office: both are excretories of carbon—both have not only nutrient vessels, but peculiar secreting vessels, it having been satisfactorily demonstrated that the blood of the vena porta is the source of the bile. Dr. W., however, mentions that the vena porta is the source

of nutrition to the liver; and also infers, that because the hepatic artery terminates in the portal vein, that there is a community of office in the blood of the two systems,—a system of ratiocination somewhat too abstruse for my comprehension. The portal blood has been shown, by the researches of animal chemistry, to be of a peculiar character, highly carbonised, and, therefore, in a state totally unfit for nutrition. Your correspondent, while advocating for the pulmonary arteries the office of nutrient vessels, appears conscious of the objection that may be raised against such a supposition from the venous state of the blood, and observes, that "it undergoes the aerating changes at the very beginning of the pulmonic capillaries." But where does the portal blood undergo aerating changes? After the secretion of the bile, it is still venous blood, and incapable of supporting life. Indeed, there is no alternative but the conclusion, that both in the case of the liver and lungs there are two distinct sets of vessels, which have a distinct and separate office, and that these organs respectively elucidate the structure and functions of each other from analogy.

The kidneys in man appear to have nothing to do with the excretion of carbon, and are possessed only of one system of vessels; but in some of the inferior vertebrata we find, in addition to the renal arteries, portal veins, as shown by Nicolai, in reptiles, amphibia, and fishes. The object of this arrangement I cannot conceive, except it be that in them, from the comparative imperfection of the respiratory system, the kidneys are additional organs for the elaboration of carbon.

With respect to the more minute arrangement of the capillaries in the lungs, Dr. Williams seems to think he has made some discovery. Denying the existence of the ramification of the bronchial arteries in the air-cells, he proceeds to show the disposition of the pulmonary arteries, and states that they are arranged in a "stratified form upon the delicate membrane composing the cells." By stratified we understand one layer being superimposed on another,—a very improbable arrangement, and one which would prevent the free aeration of the blood. Indeed, I think he cannot mean it; as, in another place, he says, "they penetrate in every direction into the substance of the air-cells."

Much of what has been said is further illustrated and proved by pathological observation. This brings me to consider the seat of pneumonia. That there is a difference in the structure affected in bronchitis and pneumonia, the symptoms of the disease and pathological results evidently show. Dr. Budd very properly observes, that in the former the bronchial arteries are affected; in the latter, the pulmonary. This being counter to Dr. Williams's views of the anatomical relations of the part, he favours us with another explanation, how satisfactory, I leave it to your readers to decide. He says, "it is known to every observer of disease, that the same part, the same network of capillaries under inflammation, may present, apparently, various forms of disease." I must plead ignorance. What are these varieties of inflammation? True; we have inflammation acute, subacute, and chronic; we have simple or sthenic inflammation; asthenic or cachectic inflammation; scrofulous, syphilitic, and rheumatic. But these differences are not pertinent to the question at issue. In the sthenic form of inflammation of a serous membrane, we have a regular chain of symptoms, the proximate results of which are, *cæteris paribus*, certain. So in inflammation of mucous, fibrous, and parenchymatous tissue, we have a decided peculiarity dependent on a difference in the anatomical structure of the part. We do not find the diseased capillaries of serous tissue simulating those of mucous tissue; neither do we find a mucous secretion exhaled from a serous membrane. There is certainly an exception to the uniformity of inflammatory secretion in mucous membranes in the case of croup, and in the diphtherite of Bretonneau. But although the effusion in croup resembles that of serous membranes, yet it is more of an albuminous than fibrinous character, and is wanting in that plastic and organisable nature so characteristic of the former. Moreover, this peculiarity may be explained by the fact of the severity of the inflammation, and from not only the mucous membrane, but also the cellular and fibrous structures beneath, being the subject tissue of the disease. So, also, the film in diphtherite would seem to be composed of disintegrated albumen, imperfectly secreted, owing to the low and asthenic character of the inflammation.

Dr. C. J. B. Williams was the first, I believe, who stated, as a prominent feature of pneumonia, that the plexus of the minor circulation was especially the seat of disease; an opinion now generally acceded to. Your correspondent speaks of the unnecessary anxiety displayed in maintaining that point; since, as he says, there are no other vessels, which statement, however, being as yet *sub lite*, goes for nothing. It would seem, therefore, that while the mucous membrane of the air-tubes and cells supplied by the bronchial arteries is the seat of bronchitis, so the sub-mucous cellular tissue, where the pulmonary arteries are ramified, is the primary and especial seat of pneumonia. This view is supported by the experiments of Andral. He found that, in the first stage of pneumonia, the divisions of the cells were thicker and redder, and gradually encroached on the cells; also in the stage of hepatisation we frequently perceive granulations, which he ascribes to air-cells filled with

viscid mucus,—the interstitial cellular tissue being the seat of the deposition of fibrin: no doubt that the cells themselves become the seat of effusion as the inflammation increases in intensity; which does not at all militate against my position, that the intervesical tissue is the primary and more particular part affected.

Your correspondent ascribes the "rusty sputa" in pneumonia to the hematin of the blood being dissolved by the serum, which in inflammation is deficient in saline matter. Several reasons lead me to differ from him. The sputa is the secretion of the bronchial membrane, yet we have no rusty expectoration in bronchitis, where, no doubt, the blood is in a similar chemical state. If Dr. W. be in the right, we ought to have red serum and fibrin effused in pleuritis; in parotitis, red saliva; and in cases of fever, where the blood is decidedly deficient in saline matter, every secretion should be of a sanguineous nature; nay, that man should in very deed "sweat, as it were, great drops of blood." It is more probable that this peculiarity is owing to a rupture of the minute vessels, as the tissue of the lung, especially in cases of typhoid character, is soft and fragile, breaking down under the finger.

I now come to a point mentioned in a former paper of Dr. Williams, his explanation of which he seems to view with ineffable complacency; viz., the "pungent heat" of the surface sometimes observed in pneumonia: as to the fact itself, all I would say is, that it is by no means general; but I quarrel *toto cœlo* with Dr. W. in his explanation. By a railroad system of induction, he arrives at the conclusion, that it is caused by the coagulation of the liquor sanguinis in the structure of the lung, and that heat is necessarily evolved. The coagulation of the blood has been one of the *questiones vexatæ* of physiological science; some maintain that it is attended with evolution of heat; others deny the fact: but one thing seems certain, that if there be any it is very trifling; and I cannot conceive why there should be any. Those who hold that there is an evolution, explain its presence on the principle of latent heat, arguing from the analogy of the conversion of water into ice. But the fact is, there is no analogy; there is no change in the atomic or integral constitution of the blood, as in the case of the solidification of water. There is simply the separating of one part of the blood at the expense of the other; and it would be as rational to maintain that there should be a diminution of sensible heat, since the serum is in a more rare state than is the blood *en masse*. Dr. W. is a very fortunate observer; he finds not only that the heat is greater on that part of the chest which corresponds with the seat of inflammation within, but also that the heat is most intense at the period when the second stage, or that of hepatisation, is "being ushered in." But, unfortunately, he finds too much. We are informed of the stage of hepatisation by the dulness on percussion and other physical signs; but these signs are observed long before the stage of fibrinous exudation, since it is shown by Stokes and others that during one-half of what is termed the stage of hepatisation, or more properly solidification, the real morbid state is great congestion of blood; so that these are not, in fact, the elements requisite for the evolution of heat, granting that there is, in reality, such an operation.

Animal heat is generally acknowledged to be the conjoint result of the various operations carried on in the body; viz., respiration, secretion, nutrition, the nervous system presiding over all. May not the heat of surface in pneumonia be accounted for by the exaltation of nervous energy, and the accelerated respiration which takes place in the first stage of the disease?

PHYSIOLOGY OF THE LUNGS AND PATHOLOGY OF PNEUMONIA.

To the Editor of THE LANCET.

SIR:—In common, doubtless, with many of your readers, I feel greatly obliged to Dr. Williams for the lucid explanation of his views respecting the capillary termination of the pulmonary and bronchial arteries. In his first essay on the subject the doctor expresses himself in so vague a manner, that the wondering reader endeavours in vain to discover from what premises he draws the conclusion, that there is only one system of capillaries in the lungs, or from what set of vessels, pulmonary or bronchial, he supposes those capillaries to be derived. He has now, however, happily cast aside the obscurity which veiled his opinions, and comes boldly forward with an assertion, the truth of which he attempts to prove by experiments and reasoning far more satisfactory to himself than convincing to his readers, that the bronchial arteries have nothing to do with the nutrition of the lungs; for that these very delicate and important organs are supplied with nutritious matter by the venous blood transmitted through the pulmonary artery. As one reason for supposing that the bronchial vessels are not distributed to the substance of the lungs, the doctor states that their capacity is too limited to allow the passage of a sufficient quantity of the vital fluid. But this objection loses all its force, when we remember that the lungs are of a much less bulk than they appear to be; that they are, in fact, small organs occupying a large space; their peculiar functions requiring not only great extent of surface, but that this surface should be so

disposed as to be constantly distended with gaseous matter. Dr. Williams is a punctual attendant in the dissecting-room; let him compress a piece of lung until it assumes the more compact appearance of liver or kidney, and then observe how comparatively small the space it occupies. This fact has not, indeed, altogether escaped the acute observation of the doctor, but, unfortunately, he has noticed it only to contradict himself. "It has occurred to me," says he, "that the quantity of blood necessary for the nutrition of the parenchyma of the lungs could not be conveyed through channels of such limited capacity;" while, further on, he states, that "the term parenchyma is scarcely applicable to the lungs, since they are made up only of an aggregation of cells." I have taken the liberty of abbreviating his expressions, but the quotations are sufficiently copious to show that in the one passage he supposes the quantity of solid structure to be too large, in the other too small to be supplied by the bronchial arteries.

Quain, to whom, as an authority on the subject, some respect is surely due, thus expresses his opinion:—"Some anatomists have been led to conclude, from a consideration of the size of the lungs, that they could not be dependent on the bronchial arteries alone for their nutrition. But if we compare, not the size, but the quantity of solid matter of the lungs with that of any other organ, even with the liver, we shall find no reason to question the sufficiency of the bronchial arteries."

Dr. Williams next endeavours to draw an analogy between the secreting glands, commonly so named, and the organs which we may now denominate the respiratory glands of Williams—the lungs. How far he has succeeded in the opinion of others I know not, but to me he appears to have signally failed. As an example of his skill in analogical reasoning, let me direct the attention of your readers to an instance of his own choosing; I mean that of the kidney. "The blood flowing through the renal artery performs the double office of secretion and nutrition, *therefore* the blood flowing through the pulmonary artery performs similar duties." Such is his mode of ratiocination. Pursuing the same style, we may imagine him arriving at other conclusions, equally legitimate and curious, thus:—Kidneys are glands, lungs are glands, therefore kidneys are lungs.

The consideration of the phenomena presented to us by the secerning apparatus of the body, teaches us that the functions of nutrition and secretion are not opponent, but coincidental. The secretion of urine abstracts not from the blood the organic particles required for the nutrition of the kidney, nor does the kidney require for its nutrition the matters contained in the urine. Here there is no incongruity, no state of mutual interference. But if we suppose the lungs to be supplied with the means of growth by the aid of the pulmonary artery, we suppose an exactly opposite state of things. In the first place, the blood, though partially depurated in its progress through the liver (that organ receiving but a small portion), is very different in quality from that which is supplied to every other structure in the body. It may, in short, be considered as the refuse of the whole system. Yet the lungs are amongst the most delicately-formed and highly-organised parts of the animal frame. Dr. W. endeavours to overcome this objection by saying, that the moment the blood enters the capillary vessels it becomes pure and fitted for nutrition. The futility of this argument is apparent, when we reflect that the process of nutrition is a process of deterioration. Supposing, then, that the blood, now arterialised, immediately begins to nourish, it must, before it arrives at the left side of the heart, again become venous or impure. This change, however, we know does not occur; we are, therefore, reduced to the necessity of assuming, in the next place, that the lungs are the agents of two opponent functions, an assumption totally at variance with analogy.

"In the fœtus," says Dr. W., "the pulmonary vessels are complete;" and why should they not be so? It may (with reverence I quote the words of Holy Writ) be said of fœtuses as of the gods of the heathen—"Eyes have they, but they see not; ears have they, but they hear not; neither speak they through their throats." Yet these organs are all "complete." The fact is, the doctor does not understand the principle of Nature's frugality; and her provisions are always prospective. Unlike her human children, it is, with her, as essential to provide for the future as to take care of the present. Moreover, it happens that the blood which passes through the pulmonary artery of the fœtus is exceedingly small in quantity, and in quality, as in the adult, the very worst in the system—worse, even, than that which the umbilical arteries contain; while the blood transmitted through the bronchial vessels is fully as pure as that which is supplied to the lower portion of the body.

I now come to the question of sanguineous effusion in pneumonia. Upon this point I shall content myself with quoting the doctor's old friend, Müller. Thus observes the German professor:—"Koch says that the colouring matter of the globules is dissolved by the serum of the inflamed part; this, however, is not probable, for in that case the fibrinous exudation would be red." Let Dr. Williams mention a single case of common inflammation in any texture of the body where the effusion is *red*. He will find some difficulty in doing so; and yet if inflamed liquor sanguinis possesses the power of dis-

solving hæmatosine, it ought in all cases to have this colour.

I beg to assure the doctor that I have not been guilty of so great an indecency as the *perpetration* of a pun on a subject so important as the definition of serum. I did, indeed, express myself in a somewhat jocular manner, but without any wish to hurt his feelings.

I have passed over several arguments advanced in support of his opinions, but I fear I have already too large a space in the columns of your valuable Journal. Nor have I noticed his experiments, for they appear to have been too carelessly made to require attention on my part.

I have now done with Dr. Williams: but before I bid him farewell, I cannot refrain from paying the tribute of my admiration to the beautiful perspicuity of his style, and the elegance of his diction as a writer; to his acuteness as a logician, and his profound acquirements as a physiologist. He has applied to me the epithets "learned critic" and "erudite reviewer." I disclaim all pretension to such high titles. I leave them to be enjoyed by men whose ambition is greater than my own; by half-incubated physicians and incipient authors. I lay claim to no more distinguished honour than that of being, Sir, your very obedient servant,

AN APOTHECARY.

April, 1841.

CASE OF ENLARGED THYMUS GLAND.

By Dr. MANTELL, LL.D., F.R.S.

To the Editor of THE LANCET.

SIR:—The perusal of the paper headed "Thymic Asthma," in your last Number, reminded me of a case which occurred in my practice when surgeon of the Royal Ordnance Hospital, at Ringmer, and is detailed in the following extract from my note-book, which I beg to transfer to the pages of THE LANCET. I have the honour to be, Sir, &c. G. A. MANTELL.

Crescent Lodge, Clapham-common,
April, 1841.

A woman, twenty-seven years of age, of short stature and spare habit, consulted me, in consequence of an occasional and slight difficulty of breathing having by degrees become frequent and distressing. The dyspnœa was at this time very urgent, and she was unable to lie down, being compelled to maintain an upright position of the trunk both night and day. Her countenance expressed great distress, and the face was suffused and of a leaden-blue colour, and together with the neck much swollen, particularly on the right side. The veins of the face and neck were greatly distended, and the upper and left side of the thorax was enlarged and tender to the touch, and the appearance of the patient was that of a person undergoing strangulation. With difficulty she stated that from childhood she had been subject to hurried respiration upon even moderate exertion, and that of late years the dyspnœa had become more distressing, and she had been seized with paroxysms that threatened suffocation. She had always felt tenderness across the upper part of the chest, and never could bear the pressure of stays or any tight article of dress. She had been married several years, had never been pregnant, and her constitution was regular. The abstraction of a few ounces of blood by venesection, at intervals of ten or twelve days, an abstemious diet, and perfect rest, afforded considerable relief for a brief period; but occasionally severe attacks of difficulty of breathing came on, and after being under my care about three months, she suddenly expired in a paroxysm of this kind.

Post-mortem Examination.

On attempting to examine the thorax, it was impossible to reflect the sternum after dividing the ribs, in consequence of the firm adhesion of a substance which was attached to the inner surface of the bones of the chest. Upon dividing, with a scalpel, the cause of the obstruction, and elevating the sternum, the *thymus gland* was found altered in its structure, and so much enlarged as to fill up the whole of the anterior mediastinum; it extended down to the diaphragm, and upwards as far as the sterno-clavicular articulation. The greater part of the gland was of a whitish colour, and resembled in texture and appearance the udder of a cow; but some portions were of a fibro-cartilaginous structure. This morbid growth, which weighed nearly a pound, had extended around the large vessels on the right side of the heart, and in some places was firmly adherent to the trunk of the vena cava. The obstruction to the circulation and to respiration, by the pressure of this enormous mass on the large vessels and on the trachea, must, of course, have been very great; and thus the symptoms which were present during life admitted of an easy explanation. The return of the blood from the head had long been seriously impeded, as was evinced by the blue or leaden hue of the countenance, and the turgid state of the veins; and the fatal termination of the case, was a necessary consequence of the progressive enlargement of the gland. The heart and lungs, with the exception of being much engorged with blood, exhibited no appearance of disease. The morbid parts were removed, and submitted to the examination of Sir A.

Cooper and Dr. Armstrong, and were left in the possession of the latter. Both these eminent men concurred with me in the opinion, that the case was one of diseased and enlarged thymus gland.

ON THE

MODE OF REDUCING LUXATIONS OF THE INFERIOR MAXILLA.

To the Editor of THE LANCET.

SIR:—Having been several times practically convinced of the unpleasant effects which often await the surgeon when employed in reducing dislocations of the lower jaw in the manner commonly described, I was led to inquire if the same mechanical means might not be had recourse to without the introduction of the fingers into the mouth of the patient. The chief indication in cases of this accident evidently consist in effecting its reduction, and the employment of the lower jaw as a lever of the first order; the molar teeth, upon which the thumbs of the operator are desired to be placed, acting as the fulcrum, which is then nearly midway between the resisting and the moving power; whilst the means I have been induced to adopt consist in placing the fulcrum nearer to the former, and thus facilitating the mode of reduction, and also obviating the liability of the thumbs being severely bitten by the sudden and powerful closure of the teeth, commonly consequent upon reduction. The surgeon stationing himself behind and above the patient, places the thumb of either hand upon the angle of the jaw, on a plane with the insertion of the posterior fibres of the masseter muscles, and then pressing downwards and backwards, which from his situation he can very effectually do, it only becomes necessary to elevate the symphysis of the jaw to complete the reduction.

During my house-surgeoncy at the Westminster Hospital, as well as within the last month, I have had opportunities of employing this means of reduction, and in no case has the slightest difficulty been encountered. It will be superfluous to relate all, but I may be allowed to refer to three instances, one of which was extremely interesting.

Two of them occurred in the persons of women in advanced life, in whom the heads of the bones slipped from their cavities while gaping. To effect their reduction it was hardly necessary to employ any upward force on the symphysis, the condyles returning to their natural positions almost as soon as the pressure had been applied in the proper direction against the angles of the jaws.

The third was that of a young man, æt. 26, who fell through a trap-door, and struck the symphysis of the jaw with so much force as to produce its dislocation. At the time of my seeing him the masseter, temporal, and pterygoid muscles had been firmly contracted, quite preventing replacement by the ordinary means; but by pressing forcibly for a short time upon the angles of the bone, and at the same time employing the rami as levers, by compressing them against the upper maxilla, the reduction was accomplished without difficulty. Apologising for thus trespassing on your valuable time, I have the honour to be, Sir, your obedient servant,

BARNARD HOLT.

1, Broad Sanctuary, Westminster.

ON THE

DIFFICULTY OF DIAGNOSIS OF HYALOIDITIS.

To the Editor of THE LANCET.

SIR:—The infrequency of death from, or during, ophthalmic disease, and the great difficulty of obtaining a deliberate examination of the organs of vision under any circumstances, have been the obvious causes of the incompleteness of the morbid anatomy of the human eye. Hence the assumption of peculiar conditions of the organ, when the subject of affections of the posterior and more hidden tissues; and hence the localising the seats of inflammation, which are neither proved by post-mortem results, nor by symptoms and appearances observed during life.

These remarks are hazarded in consequence of reading in your last Number a case of so-called hyaloiditis, by Dr. Hocken.

I by no means wish to deny that such a disease may not exist; on the contrary, any tissue organised, as the hyaloid membrane indubitably is, may be the subject of inflammatory action. I beg, therefore, simply to observe, that I do not see any symptom or detailed appearance in the case of Eliz. Ward, that warrants the assumption of hyaloiditis.

The case appears, from its early history, as the author justly observes, to be one of congestive amaurosis, probably congestion of both choroid and retina, subsequently proceeding to chronic inflammation of those tissues. The dark and luminous spectra attest this fact. The eyeball enlarges, the iris is projected forwards, and the patient becomes perfectly amaurotic. This is the result of pressure undeniably. The hardness of the globe, the blueness of the sclerotic, sufficiently indicate the increased volume of fluids within the eye. Where, however, is there anything to affirm the supposition of the pressure being on the concave surface of the retina; or, in other words, of an increased quantity of the fluid filling the hyaloid cells. In all matters pro-

confessedly incapable of demonstration, it behoves us to be cautious how we assume the existence of morbid changes, which are, to say the least, excessively rare, and especially in a case like the present, where no evidence appears to support the presumption.

It may be asked, why in this case the pressure may not have existed on the *convex* side of the retina, from an exudation of fluid between the choroid and retina. I have, by a fortunate chance, in my possession two preparations, which indicate the morbid changes to a very marked extent, in which the earlier objective and subjective phenomena accord with those detailed in the case of E. Ward.

In the one, the subject, a child, died of acute hydrocephalus, the ophthalmic disease, however, long preceding the cerebral mischief. The child became gradually amaurotic of one eye; the globe enlarged, was hard and resisting; the iris was pressed forwards nearly in contact with the cornea; the pupil was dilated; the same halo of sclerotic vessels surrounded the cornea; the same frontal pains and vertigo were present. The admission-paper of the patient was at once marked chronic choroiditis. These symptoms were soon merged in the acute cerebral disease, of which the child died.

On examination it was found, as regards the eye, that a considerable effusion of fluid existed between the choroid and retina: to such an extent, as not only to enlarge the globe and press forward the iris, but to compress the retina into an almost solid cord in the centre of the eye, and cause *a total absorption of the vitreous body*, or, at least, of its fluids. The lens had *ultimately* become opake, and was thrust forward in contact with and carried onwards the iris, to the total obliteration of the anterior chamber.

The morbid fluid was collected in a watch-glass, and coagulated by heat into a solid mass of albumen.

In this case, the amaurosis combined with hard and distended globe was the result of effusion, but, at the same time, a total obliteration of the natural fluids, the vitreous and aqueous, was demonstrated by the post-mortem examination.

The second case, the preparation of which I also possess, occurred in the practice of Mr. Tyrrell, and has been alluded to in that gentleman's excellent work on Diseases of the Eye (vol. ii., p. 71).

In this case the vitreous fluids had considerably wasted, the retina was compressed and puckered up from effusion between it and the choroid; but in the progress of the disease, although the globe had been enlarged as indicated by the preparation, absorption of the contained fluids had preceded the patient's death; and the globe, from a firm and resisting one, had become flaccid.

I am much more inclined, therefore, to look upon the case of Elizabeth Ward as one of chronic choroiditis, than as inflammation of the hyaloid membrane, more especially as the early symptoms all tend to that conclusion. The mere distention of the globe is not pathognomic, and may depend on more causes than increased vitreous body; while the *succession* of symptoms, an important matter in all obscure diseases, lead naturally to the inference that congestion of the choroid merged into chronic inflammation of that tissue, and ultimate effusion between it and the retina.

I hope that so diligent and acute an ophthalmic observer, as Dr. Hocken has shown himself in his papers upon amaurosis, will not lose sight of this interesting case; and should chance throw in his way the opportunity of investigating the morbid structures of this eye, that he will favour the readers of your Journal with details that cannot fail to be interesting in the present imperfect condition of ophthalmic morbid anatomy. I am, Sir, yours, &c.

JOHN DALRYMPLE.

6, Holles-street, May 10, 1841.

REMARKS ON THE REAL STATE OF THE PROFESSION.

To the Editor of THE LANCET.

SIR:—There is great contrariety of opinion on the present engrossing subject of medical reform; and I am sorry to say our profession is "a house divided against itself," for the physician and surgeon are taking up the cudgels in opposition to the apothecary, and publishing *ex parte* and biassed statements; but though they write upon the theory of reform, they can know little of the practical evils as they now exist, or of the practical results likely to issue from any legislative change, because from their position in the profession they have little to do with pharmacy, and are seldom summoned to the very poor; consequently, upon these vital and fundamental interests, are disqualified from giving an opinion, tested by experience.

I will not waste words, by representing to them that a rapacious spirit may be elucidated by the extortion of fees, as well as by a superfluity of medicine; my object is not to be invidious, but to offer, through your valuable medium, a few remarks upon the frequently-advanced propositions, that the end of the present system is "to *drench* the sick and *stint* the poor;" and that "the union of pharmacy with the practice of medicine, is injurious to the public and degrading to the profession."

Most unequivocally I do dissent; for, in my opinion, no one ought to compound medicine who is not interested in its operation;

the druggist is alike indifferent to that and the recovery of the patient, and cannot, therefore, be expected to prepare the prescriptions of another with the same nicety and accuracy as the regular attendant, whose reputation and interest are at stake: added to this, the druggist is usually ignorant of the science of medicine, and the nature of the drugs he compounds; and to this cause is attributable the fatal mistakes of which the public become cognisant, and the far greater number that elude discovery. During one part of my professional career, when the weight of a large practice rested on my individual exertion, I attempted to curtail the trouble of attending distant patients, by writing prescriptions, to be made up in the different vicinities; but the effect so often fell short of my expectations, I was so puzzled and frustrated, that rather than be thus baffled, I submitted to the inconvenience of furnishing *medicines* from home.

I have already in *many*, and would gladly in *all* cases, supersede the imputation of sending an unnecessary quantity of physic, by charging solely for attendance. From several families I receive a stipulated sum annually, according to the number, or so much for each necessary visit, and furnish all drugs without charge; for I do quite agree that it would be better (as well as more consonant to the feelings of a liberally-minded man), if the medical attendant had no interest, direct or remote, in the *quantity* of medicine; and were these, or similar plans, adopted generally, doubt and mistrust would be eradicated from the mind of the public, and the practitioner placed upon a more liberal footing. But I *never will again* make myself responsible for the effect of medicines not compounded beneath my own eye, and the component parts of which may be anything but what I intended, and the exigencies of my patient required. Regulations and examinations may remedy the evils of ignorance, but human nature must be changed before men will do for others as themselves; and this is the relative position of the prescribers with the druggists. I wonder (to those who are so suspicious of the apothecary) the idea has never suggested itself, that the physician might have an understanding with the chemists, and the "drenching system" remain in full force under a change of masters.

If there exist now a doubt whether "coloured water, or inert drugs, or remedies purchased at a base and adulterated market, are administered to swell up the bill of the rich, or in mockery of the afflictions of the poor," how twofold might be these abuses when the counteracting influence (the responsibility of the apothecary to his patient) was removed.

Many chemists keep drugs of different qualities and prices, and this loudly calls for legislative interference; for were they faithfully prepared, by the directions of the Pharmacopœia, none could be either inferior or cheaper. The province of the druggist is to attend to his laboratory, and prepare drugs and chemicals of *one* and the *best* quality, as directed by the College of Physicians, that he may furnish the profession with genuine medicines. This is his jurisdiction, and beyond it he is not justified in venturing; for no man ignorant of the diagnosis of disease ought to attempt to prescribe for it. Precursory symptoms are often difficult of discrimination, and many complaints, if not combated early, will baffle all subsequent efforts.

Nine-tenths of the public must ever fall under the charge of the general practitioner, and from this cause it is difficult to legislate.

Who generally sees the patient from the outset of disease? watches its development, or arrests its course? directs, and *ought to see* performed, or *perform himself*, all those duties tending as much to recovery as the medicines he prescribed?

Who that has passed through the stages of acute disease? or hung over a life dearer than his own, has not felt the comfort and assuagement of his presence? The physician may have sanctioned the previous treatment, or thrown fresh light upon an ambiguous disease; but in most cases he knows little of the previous constitution of the patient; and at best, his stated visits would ill supply the unremitting attendance, the offices of kindness, the link that rivets the regular attendant to a family, whose long-tried confidence he thus requites, in the hour of need, with genuine disinterested friendship.

I much regret that there is not usually a more friendly feeling between the different grades of the profession; for my part, nothing gives me more pleasure than to meet a liberal physician or surgeon, who will discuss his patient's complaint, and give his reasons for the opinion he has formed, and who takes an interest in knowing that his prescriptions are accurately dispensed and administered, that he may judge of the effect at his successive visits. Let him fill his place in society as his profession and situation require, but without disparaging the practitioner, who has not the M.D. affixed to his credentials; for unless we attach much importance to this appendage, where is his superiority over the surgeon-apothecary? Both are endowed with the same mental faculties; and the general practitioner, after having served his apprenticeship, is subjected to an ordeal, in passing the College of Surgeons and Apothecaries' Hall, that obliges him to have a classical and medical education quite equal to those who become licentiates of the College of Physicians. He also acquires his future professional knowledge, not by theory only,

but by visiting the sick in cellars and in garrets, where aggravated disease is mostly found, and from which the rank of the physician and surgeon must, in great measure, exclude them.

I trust in these observations I shall be acquitted of interested motives, for far different are my feelings. I am solely actuated by the wish of seeing the profession placed on such a footing as shall promote the improvement of science, and the best interests of the community at large; and if medical men would meet, and discuss the subject disinterestedly and dispassionately, much good might be done. I am, Sir, your obedient servant,

MEDICUS.

THE LANCET.

London, Saturday, May 15, 1841.

IT is a favourite maxim with some people, that medical men should "have nothing to do with politics." And, under a strong despotism, its observance would be sanctioned by prudence, if not by virtue. But for what special reasons are medical men to refuse to exercise political rights? What absolves them from the discharge of political duties? No one will pretend that the Government and the laws have not a great influence on the happiness or misery of the nation; on what grounds, then, can indifference in these matters be justified? The greatest men of Greece and Rome, and of our own country, devoted the powers of their minds to politics; why, then, should the thousands of well-educated medical practitioners, possessing a more thorough knowledge of the essential wants and nature of the people than the members of any other profession, keep aloof, when their country stands in need of their counsels and services? In reply, it will, perhaps, be said, "Politics may be left to "others, for medical men have enough to do "to mind their own business:" but, if left to others, to whom is the choice of our legislators to be delegated? To the clergy—the lawyers—the army—the farmers—the landlords—the shopkeepers—the chemists and druggists? What would be the consequence of that delegation? The House of Commons would be composed of the representatives of those classes; and the Legislature would necessarily be guided by their opinions, while the interests of the excluded, passive, self-denying classes, would be overlooked, as has hitherto been notoriously the case in all matters in which the Medical Profession is concerned. Under a representative government every man should take an active part in politics; devote time to the study of political science; and be ready to make sacrifices to carry out the principles which he believes in his heart to be right and good. And at the ensuing elections the twenty thousand practitioners of the empire will, we have no doubt, be at their posts; each exerting himself to the utmost in his sphere, to secure the return of the representatives who, he believes, are most likely to render the country efficient service.

For it is important that the suffrages of the Medical Profession should not be withheld in certain departments which may be considered as especially committed to their charge. They are the natural guardians of the public health. At that altar they have sacred duties to perform. The lives of their fellow-creatures are placed in their keeping; it is to the health of the community that they chiefly look; and it is by this test that they are naturally disposed to try the wisdom of the laws, the ability of the executive, and the virtue of governments. The interests of classes, the ambitions of party, trade, commerce, manufactures, conquests, the conflicts of creeds, and the contests of jurisprudence, are subordinate in their eyes to improvements in the health and physical condition of the people. It may be gratifying to see our friends in office—to find that we manufacture more cotton or wool than we did—that our intercourse with foreigners has increased—that savages have adopted our creeds—that laws have been passed to secure the equitable distribution of property—and that our arms have been victorious; but it is infinitely more gratifying to learn that the sufferings and diseases of humanity have been mitigated by

science and legislative institution. It may be glorious to destroy cities—to send thousands of our enemies to eternity—but it is godlike to save mankind by arresting the dreadful plagues to which they are exposed, and to lessen the painful maladies which cut off our children in the flower of their age, or leave the wife a widow, the infants orphans, the hearth desolate, and the country the abode of sickly generations. By these tests should past and future Governments be tried. What have you done, and what are you prepared to do, to promote the health and happiness of the people? is the question that should be addressed to the leaders of parties in Parliament, and to candidates on the hustings; for the people of England ought not to be always satisfied with airy, unsubstantial doctrines—mere chaff—or to fight for ever about means which lead to no useful ends.

The reform in the Tariff, which has been recently submitted to Parliament by her MAJESTY's Government, has important bearings on the public health. Sugar is not only agreeable to the taste, but nutritive; and is now a necessary of life to the temperate workman and his family: a reduction in the duty would place it within his reach. The health of the labouring classes depends very much upon the extent and goodness of their dwellings, which are rendered exorbitantly dear by the monopoly in timber: by destroying the monopoly, they would probably be provided with better lodgings in towns, and more comfortable cottages in the country. Upon the iniquity and folly of making bread dear, and restricting the supply of food to our own shores, it is quite unnecessary to enlarge here; for as no class of men are so well acquainted as medical practitioners with the miseries and privations of the poor, none are so well disposed to put the necessaries of life within their reach, at the easiest and steadiest prices. The labouring poor are every day getting less animal food, as the pasture land is being continually covered with corn, and the consequences cannot fail to be injurious and fatal in the end to thousands.

We forbear from the further discussion of these points, as they have unfortunately been thrown into the domain of party politics; but there are two subjects which fall legitimately within our province, and which ought to be taken into serious consideration at the forthcoming elections; namely, Medical Reform and the New Poor-law.

And what is Medical Reform, it may be asked, when compared with the cotton interest, the landed interest, the West Indian interest, slavery, the opium trade, church and state, the civilisation of Africa, and the thousand rallying points of party? We answer, a great deal. It is neither an illusion nor humbug. All the people of England are exposed to sickness, and to the shafts of untimely death; they are all interested in the medical institutions of the country, and in the progress of medicine, which has power, or may acquire power, to ward off the diseases of the community, to lessen the sufferings of the sick, and to protract life to its natural term. Medicine is a necessary of life; and quite as much so as any of the other articles the privation of which is fatal to existence. The people, and particularly the poor, are, therefore, deeply interested in the institutions by which medical science is professedly promoted, medical practitioners are educated, and medical skill is administered.

These truths must be brought home to the minds of members of Parliament at the elections. The trammels on the freedom of medical education in the hospital monopolies, and the curricula and disinterested certificate system invented by the licensing bodies, and their conflicting regulations, must be pointed out. Candidates may very naturally be asked, by members of the Royal College of Surgeons, whether, for instance, they are to be denied self-government, and all control over the funds which they have contributed, by the *twenty-one* chartered plunderers in Lincoln's-Inn-fields; whether, after the Municipal Corporations, and the House of Commons itself, have been reformed, the Medical Profession is to be governed by self-elective, irresponsible bodies; whether it is

right to degrade the general practitioners of England, by compelling them to undergo an examination by the City Company of Apothecaries; and whether the College of Physicians is to retain the monopoly of practice, and the degrading distinction of Licentiates, seven miles around London. Medical science has made considerable progress of late years; but it has not made half the progress it should have made, and might make, under the guidance of enlightened and liberal institutions. The public should be shown that the self-elective Corporations are in no way associated with the discoveries of the age; that they have opposed the establishment of the best scientific societies; that they have neither recognised nor rewarded the humble and successful labourers in the field of science—the JENNERS, BELLS, and others—but have reserved their distinctions for the HALFORDS and CHAMBERSES, who *trade* in physic and guineas; that they have made no effort to turn the existence of the large hospitals to account—excepting it be to levy in them exorbitant fees on students; and that they have never attempted to collect and analyse the experience of the general practitioners of the country. What man in his senses will contend that these *ucus* should be left to develop themselves undisturbed, at the expense of the members of the community?

Again, if medicine be a necessary of life, is a civilised nation—with an enlightened Government at its head—to take no means to test the qualifications of its professors? Are the lives of the people to be the sport of impostors? Is quackery to be allowed to blow its brazen trumpet through the length and breadth of the land? Are poisons to be patented? Are the articles of the materia medica to be adulterated with impunity? Is a class of tradesmen—respectable when they restrict themselves to weighing and selling drugs—to be encouraged and permitted to pretend to the healing art, without any knowledge either of the structure of the body, or of the laws of health and disease? Is this to be countenanced in the *name* of Free Trade; and are medical men to be denied *protection*, when the poor are deprived of foreign sugar—and corn—to *protect* the landholders, and the late slaveholders, of the country? We are confident that these topics will not be forgotten by our medical brethren at the ensuing elections. The Medical Associations should be up and stirring. If the House of Commons be dissolved, *medical election committees* should be formed in every district, to impress more strongly upon candidates the claims of the Medical Profession, and of the Public Health: which, in that case, would not be neglected in future Parliaments—either by the Government or the Opposition—for Rugby-Railway, or Severn-Navigation Bills.

We reserve our observations upon the Poor-law question, as well as a review, which we deem it our duty to undertake, of those measures of Lord MELBOURNE's Government, which have had for their object the promotion of the public health; for, as we have already stated, by this test future Governments must be tried.

THE Report of the *Council of the North of England Association*, on *Medical Reform*, has been forwarded to us. It is an useful document, and, we are glad to perceive, has been published for general circulation. In the following passage, the absurd objections to representative government are successfully combatted. The writer has taken much pains, in other parts of the Report, to glean opinions favourable to reform from the pens of anti-reformers and half-reformers (which is, perhaps, the same thing): out of their own mouths they are confuted. We put it to the North of England Association, whether it would not be more dignified to pass over this trash in silence? Why quote them? Why recognise them? What earthly use can it answer? It proves their inconsistency. But what proof is needed of this fact? It does not prove that they are friends to Medical Reform; and may lead some weak-minded people to expect from them measures, which

they have not the remotest intention of granting.

"A fourth party would incorporate into a faculty all medical practitioners possessing certain qualifications, with power to elect (under certain limitations) a council for each division of the United Kingdom. It has been objected to the latter method. 1. That it would introduce agitation into the profession. 2. That it would cause 'jealousies, altercations, and dissensions.' 3. That it would subvert the different *orders* of the profession. 4. That a representative council would not have the confidence of the profession, or promote its 'harmony and public utility.' 5. That the '*necessary canvass*' and occupation of time would prevent men of eminence from filling the offices of the proposed body. The council, without wishing, on this occasion, to enter into an examination of the several modes whereby a superintending or controlling body might be formed which should be alike responsible to the Crown, the Legislature, and the Profession, are, nevertheless, compelled to state that, in their opinion, some of the fears embodied in the foregoing objections are greatly exaggerated, whilst others are wholly gratuitous and unfounded. To the first of them the council would reply, that a greater agitation could scarcely be occasioned by the elective franchise being given to members of the profession, than exists at present, from its being withheld from them, and that the means which have been suggested for conducting the voting for members of a general council would place it in the power of each elector to record his votes without leaving his own dwelling. To the second, that fewer jealousies, altercations, and dissensions, would perhaps ensue from the proposed change than are caused at the present moment by the exclusion of the bulk of practitioners from all control over the medical institutions of the country, the absence of any protecting influence on the part of those bodies, and the total want of similarity in the qualifications and privileges of candidates for practice; to say nothing of the heartburnings occasioned by the *unwarrantable* distinctions existing in some instances (as in the London College of Physicians) between members of the same corporation. That a representative council would be the means of subverting the different *orders* of the profession is a fear which appears to your council to be altogether imaginary, the abrogation of the classes or grades into which the profession is at present divided, forming no essential principle of medical reform. Some of the objections which, under this head, have been raised against a general incorporation of the profession, are not only absurd but inconsistent likewise. Thus the College of Physicians of London stated in a petition presented to the House of Commons Feb. 19th, 'That the division of the medical profession into the several departments of the physician, the surgeon, and the apothecary, has been created by the public itself, and will continue to exist, *notwithstanding any attempt which may be made to unite the functions of the three in one*;' but in his reply to the medical delegates, dated March 9th, Sir Henry Halford states, that the college cannot sanction the amalgamation of the existing orders of the profession into one faculty, and the *consequent* extinction of that salutary division into physicians, surgeons, and apothecaries, which a few days previously the College had declared would continue to exist, notwithstanding '*any attempt*' which may be made to unite the functions of the three in one. That a council chosen *by* the profession should not have the confidence *of* that profession is scarcely to be accounted for; nor is it quite apparent why the *heads* of the corporations should deem those *members* whom they have admitted on proof not only of professional, but also of *moral* qualification, unfit to be trusted with the elective franchise, or incapable of forming a correct judgment respecting the individuals who might with advantage be chosen members of an executive medical council. Instead of proving injurious to the public utility of the profession, it might be not unfairly surmised that a general medical council would have an opposite tendency; for it can hardly be doubted that the profession contains within itself a degree of knowledge and experience which, if properly evolved, might be rendered eminently conducive to the public welfare. The *necessity* of a canvass needs no comment: it would be impracticable. What man could undertake to canvass a constituency spread over every county of England, or of Scotland, or of Ireland? And as to the impossibility of men of eminence finding time to perform the duties of councillors, it has happened hitherto that such persons have not only been able to discharge similar functions, but, in addition, to occupy many hours weekly in fulfilling the office of examiners. The council, before quitting this subject, take leave to quote a passage from a letter of Mr. Key, senior surgeon of Guy's Hospital, relating to the London College of Surgeons, and contained in the 'London Medical Gazette' of Dec. 6, 1839:—'An election of members of council by a learned body cannot be termed popular in the *objectionable* sense of the term. A popular election is defective from the passions or interests of the electors giving them an improper bias, or from ignorance of the qualifications necessary for a member of the council. The interests and feelings of the members would be identified with the college, and no improper motive would be likely to interfere with a sound exercise of their privilege.'"

DISCOVERY OF THE JAW OF THE IGUANODON.

Mr. Owen has observed, that "the value "of a knowledge of the comparative anatomy "of the teeth, and especially of their external "characters in the cold-blooded animals, has "never, perhaps, been placed in so striking "a point of view as in the leading steps to "the discovery of that most extraordinary "and gigantic reptile, the iguanodon, by Dr. "Mantell."—*Odontography*, p. 246. By a recent communication of Dr. Mantell to the Royal Society, it appears that his researches, after an interval of nearly twenty years, have been rewarded by the discovery of a portion of the jaw of the iguanodon; which confirms all the inferences relating to the structure and economy of the original, which he had ventured to deduce from the examination of the teeth alone. This fragment of the lower jaw comprises the middle portion of the right ramus; and although but a few inches in length, yet presents characters so peculiar and decisive, as to enable the palæontologist to determine, without hesitation, that it belonged to a reptile closely allied to the pleurodont section of the iguanidæ. In fact, it confirms all the deductions which Dr. Mantell drew from the structure and condition of the teeth, in his memoir presented to the Royal Society in 1825. The teeth are attached to a lateral plate or parapet of the jaw as in the iguanodon, and the successional teeth arise at the base of the shanks of the primary teeth. The memoir, which is very elaborate in its osteological details, contains a summary of the author's discoveries in this department of palæontology, with figures or outlines of the most important and peculiar portions of the skeleton of the iguanodon, hylæosaurus, and other reptiles, which, in the course of the last quarter of a century, he had disinterred from the strata of Tilgate Forest, and which are now deposited in the British Museum. The number of individuals of the iguanodon alone, whose bones have come under Dr. Mantell's examination, is estimated at upwards of seventy. The hylæosaurus, which in its osteological characters appears to have been as extraordinary as its compeer the iguanodon, appears to have been very rare, but four or five individuals having been detected. The microscopical examination of the teeth of the iguanodon confirms the inferences drawn from their external characters.

On the Nature and Treatment of Stomach and Urinary Diseases; being an Inquiry into the Connection of Diabetes, Calculus, and other Affections of the Kidney and Bladder, with Indigestion. By William Prout, M.D., F.R.S. Third edition, much enlarged. Churchill.

The rapid advance which the science of physiology has made within the last few years, and the application of physiological principles to the diagnosis and management of disease, is one of the most remarkable and commendatory features in the present era of medicine. The days when ingenious theory and crude hypothesis would have been received in the place of sound and genuine practical information, founded on close application and legitimate deduction, have happily passed away, and we have now the opportunity of reaping the valuable results contributed to our science by the conjoint observations of chemistry and physiology. In both of these respects Dr. Prout's work will be found to be an invaluable guide to the medical practitioner, and will enable him to direct his treatment in obscure cases affecting the digesting and secreting organs with certainty and advantage. Perhaps no modern labour can be found more richly stored with practical information of the highest order than the volume before us; indeed, we should be disposed to regard that library as incomplete which does not afford it a place, and that mind deficient which has not considered the important precepts which the author has endeavoured to establish. Dr. Prout has, for many years, been engaged in observing closely the diseases of the urine; and the fruits of those observations are collected, and systematically arranged, in the present volume, while the principal facts and opinions of others are also recorded in their appropriate places. The plan of the work pursued by the author is to discuss briefly, in the first instance, by way of introduction, the "general physiology and pathology of assimilation, and of the secretion of the bile, and of the urine." After treating of the composition and structure of organised bodies in general, the author proceeds to the classification of alimentary proximate principles, first proposed by himself, and now pretty generally admitted by physiologists in this country, into four great classes or groups. "These four great classes or groups may be denomi-

nated the aqueous, the saccharine, the albuminous, and the oleaginous."

At page 1 we are made acquainted with the divisions of the subject which the author considers most appropriate, and which he has, therefore, adopted.

"Pathology, or the doctrine of disease in general, is naturally comprised under three great heads or divisions, viz.:—Functional diseases, or those derangements arising from abnormal action of one or more organs of which animal bodies consist; Organic diseases, or those diseases arising from actual lesions of one or more of the organs themselves; and Mechanical diseases, or those diseases arising from mechanical causes, such as from the imperviousness or destruction of organs by disease, or from the presence of foreign bodies, as, for instance, of calculi, &c. in the kidney or bladder. As, however, we rarely find diseases exclusively belonging to either of these three great divisions, and as the two last divisions in particular are almost always associated in those diseases of assimilation and of secretion, which form the chief objects of this volume, we shall consider the subject under two general heads only, viz.:—

"Functional diseases; or those diseases arising from the deranged operations and less obvious lesions of the assimilating and secreting organs; and

"Mechanical diseases; or those diseases arising from obvious lesions of organs; and from the presence of foreign bodies, as of calculi in the bladder, &c."

The functional diseases are arranged in conformity with the division of the alimentary and staminal principles, under four similar heads, viz.: 1, "the pathology of aqueous assimilation and secretion," which regards the quantity of urine secreted, as relating to excess or deficiency; 2, "the pathology of saccharine assimilation and secretion," which comprises the subjects of diabetes, and the production of oxalic and lactic acids; 3, "the pathology of albuminous assimilation and secretion,"—under which head are treated the presence of excess and deficiency of urea, albuminous urine, lithic acid, and cystic oxide; 4, "the pathology of oleaginous assimilation and secretion," comprising excess and deficiency of fat, cholesterine and its deposits, &c. "The important class of diseases arising from the mineral matters incidental to the proximate animal principles, are separately considered under the head of general observations on the pathology of the incidental mineral matters entering into the composition of organised bodies."

The third division of the work, book the second, on mechanical diseases, comprehends the description and treatment of diseases arising from obvious lesions of the kidney and bladder, and particularly from the presence of concretions in these organs.

The first chapter treats "of the origin and increase of calculi in the kidneys; comprising a sketch of the symptoms produced by the presence of such foreign bodies in the kidney and ureter, and of the appropriate medical treatment." The second, "of diseases of the kidneys, produced by, and liable to be confounded or associated with, calculus in these organs; and of the treatment of such diseases." The third discusses the origin and increase of calculi in the bladder; and the symptoms and treatment of vesical calculi in general.

The fourth chapter treats of diseases of the bladder and its appendages, produced by, and liable to be confounded or complicated with, vesical calculi. The fifth, of hæmorrhage from the urinary organs in general; and the sixth of incontinence and retention of urine.

The seventh chapter contains observations on the removal of calculi from the bladder; comprising remarks on the effects of solvents for the stone, and on the operations of lithotomy and lithotrity; with a review of the circumstances which ought to determine the choice of one of these means in preference to the other, or which render all of them inapplicable or dangerous. In the appendix will be found various tables illustrative of the subjects treated of in the preceding parts of the volume.

We regret that the limits of our Journal prevent us from doing more than merely giving a brief summary of the many and important subjects with which the work abounds. The volume should be in the hands of all our readers, inasmuch as it must be regarded not simply as a volume abounding in valuable information, but also as a standard work of the very highest order in this branch of medical science. It is illustrated with several beautiful plates, exhibiting the most striking characters of cacculous formations appreciable by the eye, and indicating the microscopic appearances of crystalline deposits.

MEDICAL SOCIETY OF LONDON.

Monday, May 3, 1841.

Dr. CLUTTERBUCK, President.

MERCURY AS A REMEDY FOR INFLAMMATION.

THE discussion this evening had reference to the case related by Mr. Pilcher at the last meeting: several points in pathology were started.

In the course of the discussion, Dr. CLUTTERBUCK took the opportunity of making some observations on the present general use of mercury as an anti-inflammatory remedy. He believed that the medicine in question did not possess the power over inflammation which many supposed it did. Even in iritis, and in cases of inflammation of serous membranes, he was inclined to attribute the good results which followed the administration of mercury, to the depletory means which had been resorted to previous to the exhibition of this medicine. He well recollected the introduction of mercury into practice in this country, as an antiphlogistic agent; it was imported by Dr. Saunders, from India, and exhibited by Dr. Currie, as a specific in inflammatory affections of the liver. Dr. Currie, it was now generally acknowledged, rode his hobby too hard; and he (Dr. Clutterbuck) was supported by many others in the opinion that mercury did not possess the specific properties in liver affections which had been attributed to it; and that many other remedies, particularly those of an anti-inflammatory kind, were of more service in this class of diseases. He did not mean to contend that in these cases loss of blood was always advisable, though in some cases it might be resorted to with advantage. Mercury was by no means to be employed with impunity in all cases; for in many instances very bad effects followed its employment.

Mr. PROCTER thought the preparations of mercury were among our most useful remedies in cases in which we were at a loss how to proceed. He thought mercury of great service in inflammatory diseases, particularly in children, after depletion had been resorted to. In fevers, of late years, mercury in small doses had been, in his hands, of much service. Regarding the bad effects said to follow its administration, he had never witnessed them, except where the medicine had been abused.

Dr. T. THOMSON thought mercury possessed a specific power over inflammatory diseases; he considered its chief influence, however, was on the capillaries.

Mr. ELLIOTT had found mercury the most serviceable medicine in those cases of inflammation of serous membranes in which bleeding had been premised. In cases of mania connected with a syphilitic taint, he had found the long-continued use of blue pill, with iodide of potassium, of essential and permanent advantage. He had seen no bad results from this practice, even after it had been pursued for several months. He had, however, some years since, at Haslar Hospital, seen very dreadful effects from mercury consequent upon the patient's catching cold while under the influence of the medicine.

Monday, May 10.

Dr. CLUTTERBUCK, President.

DISEASE OF THE TESTICLE.

Mr. PILCHER exhibited a testicle which he had that day removed from a young gentleman, about twenty years of age. The patient had been somewhat precocious in the development of his testicles; had dark hair and eyes; was small and thin, and of rather weakly constitution. Six or eight months since he received a blow on his testicle with a stick, having at the time never had syphilis or gonorrhœa. The testicle became enlarged, but without pain; and, as his sexual appetites and performances were not interfered with, he, at first, took no notice of the injury he had received. After some time, however, the testicle became inconvenient, from its weight and size, having very much increased in both, and he applied to a medical man on the subject. Various remedies were applied without making any impression on the gland, and Mr. Pilcher was consulted respecting it. He found it to be very hard, but still somewhat compressible; it was four times as large as the opposite gland, and was free from pain; the cord could be felt distinct from the testicle. Considering that the enlargement was the result of chronic inflammation, occurring in an unhealthy constitution, mercury was administered, but took no effect, either on the mouth or the disease, while his general health became much depreciated. The mercury was accordingly discontinued; the patient placed on generous diet, and sent into the country. He soon recovered his usual health. The skin covering the testicle now ulcerated, and a quantity of strumous matter escaped from the opening. Numerous granulations appeared about the ulcerated part, which frequently took to bleeding, and very much reduced the strength of the patient. Mr. Pilcher now thought that the sooner the gland was removed the better; but Mr. Travers, who was at this time in consultation, was of opinion that the general health of the patient would not admit of operative procedure. The testicle was now strapped up, but the bleeding still continued, and an abscess formed. The cord increased in size, and became tender from the pressure of the testicle upon it, the gland itself still remaining free from pain. As the health was now improved, and as there was no enlargement

of the glands in the neighbourhood, Mr. Pilcher removed the testicle. This was readily done. On examining the cord the posterior portion of it was found somewhat diseased, and he at one time thought of slitting up the external abdominal ring, to remove those parts which were otherwise out of reach of the knife. As, however, the anterior part of the cord and the vessels were all healthy, and, as he considered the affection to be strumous, and not fungoid, he did not resort to this step. On examining the testicle, he had come to the conclusion that the disease was of a scrofulous character, had been excited by ordinary and common causes, and was not malignant. The body of the testicle had a lobulated and mottled appearance; the matter contained in the lobules was of a tubercular description, in various stages of development, in most parts being hard, but in one or two places quite softened down into a pulpy, cheesy kind of matter. The vas deferens was partially diseased. Mr. Pilcher considered that the deposit had resulted from long-continued chronic inflammation, occurring in a constitution incapable of developing the ordinary organised deposit of inflammation, and therefore depositing strumous matter. Respecting the age of the patient, he had not himself seen a malignant disease in so young a subject. Dr. Walshe, in his valuable article on cancer, had mentioned several cases of this disease which had occurred in early life; and Sir A. Cooper had recorded a case of malignant disease of the breast in a young woman of twenty-five. He (Mr. Pilcher) had seen a case of cancer proving rapidly fatal in a lady, aged thirty. Several distinguished surgeons had seen this case in its early stage, and had concluded, chiefly from the age of the patient, that it was not malignant. Regarding the case of the diseased testicle first related, the complexion of the patient might be considered to militate against the opinion that the disease was strumous; but it must be recollected that struma was not confined to persons of light complexion.

Mr. Crisp had seen many cases of fungoid diseases in children, particularly when the eye was the seat of the disease. He had always understood that the distinguishing mark of fungoid and cancerous disease, was, that the former was likely to occur in the young, and the latter not so. Looking at the main facts of Mr. Pilcher's case,—the constitution of the individual, the rapid growth of the diseased organ, and the painless nature of the affection, he could not help having great fear for the result. Pain was often quite absent in fungoid diseases of the eye. He recollected Mr. Green removing the eye of a child of nine years of age, which was affected with fungoid disease, and of which the patient died. Mr. Wardrop had recorded twenty-one or twenty-two cases of fungoid disease of the eye, all of which occurred in young persons.

Mr. Headland had doubts as to the ultimate success of the case, as he was inclined to attribute the disease to a peculiar condition of the system, and not as the result of inflammation, which, *per se*, he believed would never have produced the deposit.

Mr. Hird thought that the constitution of the patient, the symptoms of the disease, and the appearances presented by the morbid growth, all warranted the anticipation of a favourable termination of the case. Cases of strumous affections of the eye were worse in dark-complexioned persons than in others. Cancer, or fungoid disease, was seldom unaccompanied by great constitutional disturbance or glandular enlargement, both of which were absent in this case. In malignant disease, also, the arteries would have been more diseased. The absence of pain, also, was favourable to success. The appearances presented by the tumour were those of scrofula, in different stages of development. He noticed also the absence of an appearance usually present in malignant disease, and consisting in peculiar bands, or striæ, intersecting the mass throughout. If malignant, he should also have expected to have found the cellular coats of the neighbouring arteries diseased.

Mr. Dendy thought the disease was decidedly strumous, chiefly on account of there being evidence of two or three stages of that disease in the gland; had it been a fungous tumour, the entire of the diseased mass would have changed in appearance when the ulceration took place. Under any circumstances, however, he thought, in a doubtful case of this kind, that the patient should have the advantage which an operation afforded.

Mr. Evan Jones considered the disease to be strumous, and thought that the fact of the small glands about the carotid artery being enlarged (a point to which his attention had been directed by the patient) strengthened this opinion. This, with the appearances presented by the testicle, gave him no doubt that the disease was strumous.

Mr. Procter was afraid of the appearances presented by the gland, and related a case of a small filbert-shaped tumour on the rectum, occurring in a middle-aged man, and which was removed by Mr. Copland, with the effect of apparently curing the patient. After a time, however, a small portion of the disease, which had been beyond the reach of the knife, in the rectum, ulcerated, took on malignant action, and destroyed the patient. He thought, however, Mr. Pilcher had acted wisely in the removal of the disease, although he was

fearful of its return in some other part of the system.

Mr. HANCOCK related the case of a stableman, who, having caught cold, became three days afterwards affected with a swelling of the left testicle. The symptoms presented were those of simple chronic enlargement of the gland. After a time, however, various soft spots were to be detected in various parts of the testicle, and at the end of two or three months the late Mr. Howship removed the gland; the patient, who was a dark, swarthy man, went out of the hospital well. He returned, however, at the end of twelve months, with a similar condition of the right testicle, consequent upon cold; he (Mr. Hancock) declined to remove the diseased growth, and applied iodide of potassium ointment to it: he also gave him iodine and iodide of potassium internally, and the testicle got much less. He was sent into the country, and Mr. Hancock lost sight of him. On opening the testicle, which was removed, it did not present the appearance of malignant disease, but, like the specimen on the table, was smooth.

Mr. PILCHER was glad that the general opinion was in favour of the operation, and of the eventual well-doing of the patient.

PECULIAR DISLOCATION OF THE HIP.

To the Editor of THE LANCET.

SIR:—I beg to forward you the particulars of a peculiar "dislocation of the hip," which may be considered of sufficient importance to be communicated to the "faculty at large," through the means of your valuable Journal. I am, Sir, your obedient servant,

A PUPIL OF ST. GEORGE'S HOSPITAL.

May 19, 1841.

Jas. Millwood, æt. 70, was admitted into St. George's Hospital, on the evening of May 3, apparently in a dying state. He was found to have fracture of several of the ribs of the left side, and fracture of the right thigh, a little below the middle. The left foot was much everted, and there being no fracture of this limb, the attention of the house-surgeon, Mr. Tarrant, was immediately directed to the hip-joint, and the following appearances presented themselves:—The outer part of the left hip-joint was much flattened, and the usual prominence of the trochanter wanting. About an inch below, and a little external to a line, drawn perpendicularly downwards, from the anterior superior spinous process of ilium, was situated the *head* of the *femur*, the trochanter major lying backwards, and outwards to the latter. The head of the bone could be distinctly felt to move on flexing or rotating the limb.

It was impossible to ascertain (during life) what was the amount of shortening, in consequence of the fracture of the opposite thigh. The eversion of the foot was so considerable, that the great toe might be said to point outwards, and slightly backwards. The limb admitted of very slight rotation or flexion.

The accident was occasioned by his being thrown out of a cart, and becoming entangled in the reins; the horse ran away, and he was dragged to some distance. He died shortly after his admission.

On examination after death, it was found that the bone had been dislocated directly upwards, the head lying on the anterior inferior spinous process, and a little to its outside. The trochanter major situated posteriorly, and resting on the dorsum of ilium, the trochanter minor resting on the outer edge of the acetabulum. The gluteus medius and minimus were very extensively ruptured, and nearly torn through, at about two inches from their attachments to the trochanter major. The gemellus superior was slightly lacerated, as was also the gemellus inferior and the upper fibres of the quadratus femoris, besides the short head of the rectus. The capsular ligament was extensively lacerated at its superior part. The "ligamentum teres" entirely ruptured, a little before its attachment to the acetabulum; so that a portion of it remained adhering to both its points of insertion. There was a great quantity of effused blood in all the textures surrounding the joint. The parts are preserved for a preparation; and I feel confident when I say, that Mr. Hewett, the curator of the museum, will, with his usual kindness, be most happy to show it to all who feel an interest to see the "new kind of dislocation of hip-joint."

KNOWLEDGE OF GENERAL PATHOLOGY AMONGST SURGEON-DENTISTS.

To the Editor of THE LANCET.

SIR:—Since I have been agitating the question of dental quackery, and the necessity for some means of protecting the public from the effects of imposition and ignorance, and to ensure confidence in really respectable dentists, I have been told that such a reform would be very easy and very practicable; "for that the requisite knowledge of anatomy and pathology for the dental practitioner was simply confined to the mouth, and that, *therefore*, a little industry would be sufficient to qualify any one." This view of the case is too contracted, and quite at variance with my own experience; and, therefore, to establish a

contrary position, "that merely local anatomy and local pathology are insufficient to ensure a safe and honourable practice," I will trouble you with a few facts.

Some years since (1828), during my residence in Hull, a lady applied to me to have six teeth extracted in the upper jaw; they were situated on the right side. The pain commenced at the mesial line with the central incisor, and continued to the second bicuspid tooth. She said, "that she had suffered so much torture and agony from the teeth, that she was determined to lose them, although it would be a great injury to her personal appearance." On examining the teeth I found them sound and healthy; the gums somewhat full, and red; the breath hot and fœtid; the tongue covered with a thick fur; and every thing to indicate a costive state of the bowels; I therefore declined extracting the teeth, telling her that she required a good cathartic dose of medicine, and if it did not remove the pain from her mouth, to apply a few leeches to her gums. She seemed very indignant that I should presume to talk of the state of her bowels, when she had only come to consult me about her teeth. However, I persisted in refusing to extract them. She left me; and as my statement had been correct, and my disinterestedness unquestionable (as I did not charge her a fee), she acted on my advice, and her medical man soon cured her.

Some time afterwards the lady wrote me a grateful note, inclosing a fee, and thanked me "for my honourable conduct," &c. Now, had I been ignorant of general pathology, I should have had no other alternative but to deprive a person of sound and useful teeth; and as the cause of the malady would not have been removed, the probability is, that the other teeth would also have been affected in a similar manner.

Another instance of the importance of pathological information to the surgeon-dentist is the following:—

Some years since, during a visit to Newark, in Nottinghamshire, I was requested to see a poor woman, of the name of Johnson (a pauper), who had a very large tumour in the mouth, which had pushed the tongue on one side, and extended nearly to the *uvula*, and so effectually prevented the mouth from being opened, that the unfortunate creature could not take anything but "slops;" nor had she eaten any solid food, if I recollect rightly, for two or three years previously to my seeing her. From the extreme size of the tumour, there was a probability of suffocation. On examining it, I found that there was nothing malignant in its appearance, although it had been regarded as a *fungus hæmatodes*, and I stated as my own opinion of it, that it originated either from rough carious teeth or fractured bone.

On an appointed day I removed it, at the surgery of Mr. Lacy, who attended to the patient, and by our united services she was cured of this fungus-like excrescence. The tumour, on being cut open, contained a number of pieces of black, carious bone, extremely rough and irregular; and it was after this ocular proof of the truth of my *diagnosis*, that Mrs. Johnson told us, that eighteen years past one of her brothers had struck her on the face with a bludgeon.* There are many thousands of teeth now left in the heads of her majesty's liege subjects, by the simple application of leeches, which would otherwise have been mercilessly extracted; and this anti-drawing system has become much more general since the first edition of Mr. Thomas Bell's admirable work, and his Theory of Toothach, that it was owing to inflammation.

There are other topics that I should have wished to mention, but the fear of being too prolix deters me; yet I trust that what I have said will render it obvious, that it is not sufficient professional qualification to practise as a surgeon-dentist, if a man merely knows that teeth are situated in sockets, and that they can be taken out when painful; and that as reforms are spoken of in reference to the medical profession, I call on the truly respectable dental practitioners, those who are so in character and knowledge, to use some means to place themselves within the pale of the laws, and have a guarantee in the form of a diploma, or a certificate that they do not belong to a class whose only object is peculation, and whose only credentials are unblushing effrontery and inordinate cupidity. I am, Sir, with great respect, yours truly,

J. L. Levison.

25, Upper Temple-street, Birmingham,
May 5, 1841.

* There is one circumstance connected with the case of poor Mrs. Johnson, which, although not altogether relevant to the object for which I quoted it, yet I am induced to mention. Our poor patient had but half-a-crown a-week allowed by the parish, and from the long drain on her constitution, arising from the want of sufficient nourishment, she was very low. Mr. Lacy and I wrote separately to the overseers (her parish not being in Newark), pointing out the necessity for an additional allowance of food, of a generous and nutritious kind, and stated, that as we had given our services gratuitously, we had some claim that our representations should be attended to; but the sage officers deigned not even a reply to our request. From her debility an old and suspended disease returned, she having been subject to epileptic fits previously to the formation of the tumour; and so violent were the renewed fits, that she did not live more than a year or two after the operation.

NAVAL ASSISTANT-SURGEONS.

To the Editor of THE LANCET.

SIR:—The remarks you appended to the letter of a "Naval Assistant-Surgeon" in THE LANCET of the 13th inst., seem to me to call for reply. The object of the writer of that letter was, to state the existence of substantial grounds of complaint among his class of officers in the royal navy. A prominent object of your editorial duty being the exposure and removal of all abuses affecting the medical profession, whether in the public service or in private practice, you will not, I hope, decline the publication of the following remarks; especially as they proceed from the pen of one who has himself endured the privations, and submitted to the discomforts complained of. Looking at the same rank of medical officers in the army, we see the assistant-surgeon enjoying unrestrained intercourse with the surgeon, and his other brother officers of the same regiment, both at the mess-table and in general society; yet, without throwing down all distinctions between the surgeon and his assistant; without any disadvantage to the public service; deficiency of respect for his superior officers; or any feeling of derogation on their part, resulting from such association. Then why should opposite results be pleaded for the continued exclusion of the assistant-surgeon from the ward-room in the naval services? Again, reverting to the navy, we see a raw youth of nineteen, having just left school, coming on board a man-of-war as a marine-officer. He is received as a gentleman; introduced at once into the ward-room, takes his seat at the mess-table by the side of a veteran first lieutenant, and a gray-headed captain of the same corps; freely mixing in the society of other officers of superior rank to himself; accommodated with a private cabin; the comfort of a cot; and the gentlemanly appendage of a man-servant. Whilst the assistant-surgeon, who has been toiling through a long and laborious course of classical, scientific, and professional education; finished, perhaps, with the acquisition of university honours, if not with a doctor's degree in medicine; as soon as he makes his appearance alongside the ship to which he is appointed, is not received on the same side of the quarter-deck as the young marine-officer, or with equal distinctions as a gentleman; he is then handed down into the "midshipmen's berth," the only place for his constant residence, his meals, and his study—where, "if the assistant-surgeon will read, will study, will insist upon distinguishing himself by excellent reports, ingenious and practical views," he must labour to do so, is perpetually surrounded by noisy youngsters and garrulous companions, who have generally a great antipathy to studious habits, and literary and scientific pursuits. Now, I ask, whether it be fitting, whether it be just, that the assistant-surgeon, who by laws and regulations is required to be the best educated person entering the naval service, and who does not enter it to learn a practical profession (which may fairly sanction a progressive scale of accommodation agreeably to acquired rank and promotion among nautical officers in the naval service), that he should be thus disparaged, instead of enjoying the respect due to his profession and standing as a gentleman in society. But as you, Mr. Editor, expressly "prefer to receive suggestions for the correction of the inconveniences to mere complaints," I would urge the justice as well as the practicability of having the assistant-surgeon provided with a separate cabin, as his dormitory and study; when the desirable and important professional objects enumerated by yourself may be accomplished, to the credit of the assistant-surgeon, the good of the naval service, and the advantage of the medical profession. And if the time be not yet arrived for the assistant-surgeon equitably to participate in the companionship of the ward-room officers with the more fortunate subaltern officer of marines, both on the quarter-deck and at their mess-table (although a better-educated man and their compeer in general society); then let him still patiently endure his invidious exclusion, the boisterous mirth of his junior messmates, and the annoying interruptions of his studies by his riotous mess-companions, until his hammock be turned into a cot, and he fortunately exchange his noisy homestead for the luxury of a quiet cabin: indulging the generous hope that the auspicious hour is not far distant when succeeding officers of his grade will be benefited by the improved arrangements of a more enlightened and liberal policy. Then, sir, may you expect no longer to have reason for "expressing a sincere regret that the science of medicine should have received so little from the hands of naval medical officers."

I am, Sir, yours obediently,

A LATE NAVAL ASSISTANT-SURGEON.

*** As our correspondents on the above subject have no suggestion to offer for the remedy of the inconveniences of which they complain, perhaps they will have no objection to receive one from us. Let the surgeons of the navy, who must be experimentally acquainted with the sufferings of their juniors, if they see reason in the solicitations of the assistants, address a petition on the subject to the physician-general; and we feel sure that their request will receive proper attention. It will not be easy to legislate upon the matter so as to afford satisfaction to all parties.

DR. SERNY AND DR. MAYO.

To the Editor of THE LANCET.

SIR:—I shall feel greatly obliged by your allowing the following facts to appear in your valuable and widely-circulated hebdomadary.

At the meeting of the Royal Medical and Chirurgical Society, on the 13th of April, and] reported in your Journal, Dr. Mayo related a case of a paralytic lady, wherein my name is mentioned, and the result of my practice is somewhat mis-related. It is neither necessary nor my wish to defend the views and opinions I gave of the case, or the practice of my lamented friend, Dr. Harrison, whose peculiar mode of treatment I witnessed for several years as his colleague in a large field of experience, and I have continued to devote all the zeal and energies in my power to his principles of treating spinal affections, and enlisting every improvement suggested by the experience of other practitioners, as well as my own, for accelerating the cure of these distressing cases.

I had no idea until now, that Dr. Mayo did not sanction the proceedings adopted by me in the case of Mrs. S., as he prescribed medically for her during the months I attended her in London, about three years ago. I must, however, beg leave to state that the extensive sinuses near the ilium were not, as implied, the effect of my instruments, as no pressure was made beyond that of a fine folded table-cloth, or fine sheet, but the usual consequence of pressure from a long-continued horizontal position, in very debilitated or paralytic patients, particularly when the varying the position and the other duties of an experienced nurse are neglected, which, I regret to say, occurred in Mrs. S.'s case, when my rubber, Mrs. H., ceased to attend her.

The sinuses not having yet healed, according to Dr. Mayo's statement, would tend to confirm them to be the result of the affection rather than the effect of my treatment. Sinuses seldom occur in my practice, and still more seldom do they resist my remedial means for their speedy cure. I much regret that I failed to obtain the concurrence of so accomplished and talented a physician as Dr. Mayo, in the case of Mrs. S. I have now, however, the satisfaction to know, that Dr. Mayo is, like many others, at last, a convert to Harrisonian practice, by his having lately selected me to attend his own child, who will surely be cured, if I may judge from similar cases upon record. I have the honour to remain, Sir, your very obedient servant,

JOHN B. SERNY, M.D.

24, Holles-street, April 28, 1841.

NOTE FROM DR. MAYO.

To the Editor of THE LANCET.

SIR:—You will, I am sure, allow this letter to find an early place in your columns. In the report in THE LANCET, of a statement made by me at the Medico-Chirurgical Society, April 13, the following expressions occur, relative to the treatment adopted by Dr. Serny, the successor of Dr. Harrison, in the management of a spinal case, there described by me:—"Dr. Mayo now lost sight of the case, as he did not sanction the proceedings adopted."

Now, your general report of my speech on that occasion is so accurate, that I am more disposed to think myself than your reporter to blame in regard to that passage. Such as it is, however, it conveys a disapprobation which I did not mean to express. My attentions were at that time given to the general health of the patient; my opinion, in regard to the effect of the spinal treatment, was undecided.

With respect to the subsequent treatment of this patient, in the interval which occurred between the discontinuance of my attendance and its resumption, sinuses certainly had occurred near the ilium, and the health had deteriorated. But I had no intention of imputing this to the treatment pursued by Dr. Serny. It has occurred to me to witness or to know of many cases successfully treated upon his plan; and I am unwilling to let any expressions, which I may have appeared to drop, give it a character, as far as my testimony is concerned, less favourable than it deserves. I have the honour to be, Sir, your obedient servant,

THOMAS MAYO.

56, Wimpole-street,
May 11, 1841.

VALUE OF THE LICENCE OF

THE COLLEGE OF PHYSICIANS.

To the Editor of THE LANCET.

SIR:—If the physicians, not members of the London college, who are at present in practice in England, should be induced to join the London college by the payment of a *fee*, what benefit do they gain? The College of Physicians would collect an immense sum, a capital of many thousands, by the voluntary surrender of the physicians; but would the interests of the latter be increased? If the physicians refuse the honour of a licence, can the college or even the Legislature deprive them of their practice, the public confidence, their hospital appointments, their station in the world? Then the college, after all, is only going to speculate on the pockets of those who are independent of

their body. They offer no real advantage in return; they can neither give us reputation nor take it from us. They offer only a licence; but without that we have obtained honour and fortune. Would they license us to retain these; are we to pay for a permission to retain that which no human power, whether collegiate or senatorial, can deprive us of? We would pay for honour—the fellowship of the college would be honour—but we would not pay for what we have already possessed ourselves of—the right! The college never had any jurisdiction in the provinces; if they had, it has long been forfeited by custom; and that never to be recovered but by new law, prospective in its operation.

The fellowship of the college, second to no other title but a council of management, would be an honour worth the stamp of the diploma, should Government impose one; and an annual fee, or ready sum. The provincial practitioners should deliberate on this matter; if they yield to the present scheme of licentiateship—they will confer the favour, the college will receive it. The sum which the non-college physicians would subscribe, would raise them a college of their own; and their fellows would not boast inferior names to the list on the London college.

A PROVINCIAL HOSPITAL PHYSICIAN.
April 4, 1841.

GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR:—Our winter lectures are not yet finished: I am surprised that a few regulations do not exist in a school which professes to render itself one of the first. Comparative anatomy lectures we have been without during the whole session, in consequence of the appointment of an unpopular lecturer, whose introductory was only attended by two pupils, and whose course, therefore, was not given; whilst, as regards morbid anatomy, the lectures on which are given by the same professor, in conjunction with Mr. Hilton, we have not been in a much better state, not having had more than eight lectures during the session:—those of Mr. Hilton being well attended, whilst those of Mr. King have seldom or ever exceeded an attendance of five or six, the pupils not wishing to attend a teacher who considers them to be a sort of scum, or to waste an hour on a lullaby. The authorities of the hospital are aware of all this, but yet sanction flaming advertisements. We are told, when we complain, that instructions in morbid anatomy will be given in the summer,—when we are at our homes! I am, Sir, your obedient servant,

A MEDICAL STUDENT.
G. H., May 4, 1841.

DR. BUTTON AND 'PHILANTHROPOS.'

To the Editor of THE LANCET.

SIR:—After a lapse of four weeks, Dr. Button has replied to the letters of "PHILANTHROPOS." It would have been well if he had remained silent. Dr. Button says, that he has neither time nor inclination to enter into discussions with an anonymous opponent. "PHILANTHROPOS" invites no discussion. The question between him and Dr. Button is a question of *fact*, not of *opinion*, and demands *denial*, not *argument*. Dr. Button has alleged, in his letter to THE LANCET, and through the medium of his friend Mr. Trimmer to the bench of justices, that certain occurrences have taken place at Hanwell, during Dr. Conolly's superintendence, unfavourable to his system of treatment; and he offers, in proof of his assertions, extracts from his private journal, made, as he states, at the time of the occurrences, but which he admits are not to be found in his public journal. "PHILANTHROPOS," in answer, says, it is not that these entries are *omitted* from your public journal, but that they are contrary to, and inconsistent with, the entries there made. In some cases, what you call entries in your private journal, are only partial extracts from your public journal, by which partial extracts you give a different complexion to the occurrences you narrate; as, for example, the entries respecting shower-baths. In other cases, your entries are nearly similar in both journals; but important dates are altered, as in the entry respecting the eating the poultices. In other cases you vary the words of the entries, and introduce expressions and interpolate words which change the sense; as, for example, "frightfully" is substituted for "rapidly," &c., and so on; and to prove these serious charges, he gives a series of entries as the true entries in Dr. Button's own handwriting in the public journal, and which he says were produced as such by the visiting justices in their defence at Clerkenwell. The simple question, so far as Dr. Button and "Philanthropos" are concerned, is this,—Are the statements of the latter *true* or *false*? That is to say, are the extracts which the visiting justices laid before the bench true extracts, or have they been guilty of the dishonourable act of garbling extracts from the journal in their possession to meet the extracts of the private journal in Dr. Button's? Unless they have done this, "Philanthropos" has proved his case, and Dr. Button cannot shield himself from the lash under the pretence of "not entering into discussions with an anonymous opponent;" and he can have no difficulty in denying the truth of the extracts if they be untrue, especially if he himself made extracts from the public journals before he left the asylum.

Excepting as far as the character of the medical profession is concerned, there is now little in this affair. The mine has exploded harmlessly, and the humane system is steadily progressing, in defiance of the angry attacks of its opponents. Dr. Button may flatter himself that the defence of him by Serj. Halcombe was as successful as it was full, but public opinion gives a different version. The impression is universal, that Dr. Button has kept a private journal at variance with his public journal, and made the entries in such private journal the foundation of charges against the management of the asylum of which he was the house-surgeon, and that his charges have been met and answered by the production of his own entries in his public journal; and unless Dr. Button can remove this impression, he cannot hope, whatever may be the merits of the system he upholds in opposition to the Hanwell system, that his opinions or statements will have any weight with the public mind. I am, Sir, yours, &c.

RUSTICUS.

April 15, 1841.

THE SURGEONS AND CHEMISTS.

To the Editor of THE LANCET.

SIR:—Among all that has lately been written concerning medical reform, I do not think that the case, as concerns chemists and druggists, has been fairly stated. The outcry is, "prevent chemists from prescribing;" but their response, "prevent surgeons from dispensing," is entirely overlooked; and measures are concocted to restrain the former "abominable practice," without referring to the latter; by which the chemist is as much injured as the surgeon is by the former. I am aware that the dispensing surgeon is a degraded man among his profession; and let me assure you, that the prescribing druggist is equally degraded among his brethren. To the respectable chemists it is a subject of regret that this counter-practice should be allowed; and I confidently assert that they would lend their aid to prevent it, were it attempted in a reasonable manner; but when it is wanted to prevent such simple practice as the recommending of a black draught, what else than opposition can be expected? Some chemists will treat disease in almost every form; it is here that the remedy is required, and not where a person recommends "something for a cough," or "a pill as an aperient."

It really is the wish of the majority of my chemical brethren that the present system should be amended; and further, that some examination should be required to constitute a chemist and druggist; therefore, as both parties are inclined for reform, why not set about it together? There is a medical conference on the part of the surgeons, and a committee on the part of the chemists, appointed to take such measures as they think their case requires: then why do not these parties meet, and consider the subject, not as enemies, but as friends of the same cause, ready to concede mutually to each other, and so to advance the cause of both?

Should you, Mr. Editor, concur in the above suggestion, I feel assured that a few words from you would bring the parties to an early understanding. Yours obediently,

R. L.

London, March 24, 1841.

THE PHYSICIANS AND GENERAL PRACTITIONERS.

To the Editor of THE LANCET.

SIR:—Perhaps there is no law of the Royal College of Physicians of London more absurd, unjust, or injurious, than that which forbids the fellows and licentiates to meet in consultation *de rebus medicis propriis* any practitioner, but one of their own body, under a penalty of 5*l*. This law is not known to the public at large, but it is well known to the *viri graves et docti* of Pall-Mall East; and some of the true and faithful act upon it as far as they can, and rather than infringe upon the laws of their college, they will break in upon the laws of social propriety. Hence a physician has been seen to visit a patient, when a respectable general practitioner was in attendance, without condescending to receive any information from him respecting the history of the case, the constitution, habits, &c., of the patient: has gone into a room with the apothecary and written the prescription, given his opinion to the friends, and appointed to see the patient again, without favouring the usual attendant of the family with any conversation: this, I dare say, he considered perfectly correct. This is a wrong state of things; and in a country where the general practitioner has had a good medical education, and is in a different position with the public to the apothecaries of other countries, should not be tolerated. The practice of medicine is conducted in this country by general practitioners; the physicians form but a very small, numerical proportion: the public will have the general practitioners, confide in them, and treat them with respect; and however any corporate body may now attempt to hold them down, their efforts will be in vain.

I cannot conclude without stating, that there are many who hold the highest honours of the college with honour to themselves, and are not bound by the petty acts of the craft, who, with an ingenuous mind, consider the welfare of the patient as their highest duty, and are ready to show respectful

behaviour to every respectable practitioner they meet, irrespective of corporate distinctions, who believe, with Dr. John Gregory, "As a doctor's degree can never confer sense, the title alone can never command regard;" and that, "If a surgeon or apothecary has had the education, and has acquired the knowledge of a physician, he is a physician to all intents and purposes, and ought to be respected accordingly." I am, Sir, your obedient servant,

ADSTANS.

London, April 29, 1841.

THE STAMMERING QUACKERY—A NEW PLAN OF CHEATING THE PUBLIC.

To the Editor of THE LANCET.

SIR:—When are we to have a finish of quackery? At present, like the hydra of the mythology, no sooner has THE LANCET succeeded in striking off one of the heads of the "seven-headed monster," than a new one starts in its place, and the labour seems endless. Like Hercules, however, I trust you may be eventually successful in your efforts.

The political press shamelessly lends itself to the propagation of quackery, and spreads the contagion abroad, by its paid-for reviews of lying pamphlets and *ad captandum* books. Look at the operations for stammering, as performed wholesale by several pretenders to surgical science at the present time. Was there ever greater humbug than that? Is there no way of punishing ignorant persons who maim and wound all individuals *indiscriminately*, who may unfortunately come under their hands. Surely, because a man calls himself a *surgeon*, he is not entitled to unnecessarily maim his *patients* without being amenable to the law! It appears from a conversation that took place at the Westminster Society, at its last meeting (which I visited), that one of these operators has published, in the form of a pamphlet, a paper read before that society, on the subject of his "discovery;" and that he has had the audacity to dedicate it to the members, who "invited" him to read it before them. Why, Sir, it appeared from what took place, that no invitation of the kind had been given to this pamphleteer, but that he had been simply *allowed* to read the paper in question.

The object of this advertising book-maker, operator, and discoverer, in the form of dedication, is sufficiently obvious. Had I been a member of the society, instead of a visitor, I should not have been satisfied by calling the assertion in the dedication a "misstatement," or an "error," but should have taken other means of characterising it more correctly. Yours truly,

A HATER OF QUACKERY AND FALSEHOOD.

ASSURANCE OFFICES AND MEDICAL MEN.

To the Editor of THE LANCET.

SIR:—The course which "A Sufferer," March 20, 1841, ought to have pursued, is plain enough; *he* should have paid the fee to the medical referee, or else have allowed it to be charged against him, along with stamp duty, &c. by the office, which would have handed it to the medical friend of the party insuring. Were the office to pay the stranger medical man, as well as their own, it would thus render him, for the time being, its own servant, and no action, in case of a false return, could be sustained; for I believe the truth of the medical referee's report is investigated, more particularly when the insurance has to be paid; and if this is proved to be false, either wilfully, or through ignorance of the constitution, and hereditary disposition to disease of the patient, the office does not pay,—and the onus falls, properly, on the medical referee.

Therefore I say, that whoever is interested in the insuring ought to pay the stranger medical man, whether A insures his own life, or B insures that of A; let the fee be transmitted *through* the office when its letter is sent, to be charged with the other expenses against the person insuring. I have myself lost many a fee, by not wishing to ask my friends for it, or from never coming in contact with the person making the insurance. I have received fees, I presume, on this principle, several times from insurance offices. Your obedient servant,

G. F., M.D.

March 24, 1841.

CLINICAL LECTURES IN THE LEEDS SCHOOL OF MEDICINE.

To the Editor of THE LANCET.

SIR:—Knowing your readiness to redress any grievance, and those of medical students in particular, I respectfully draw your attention to the following, connected with the Leeds School of Medicine.

The prospectuses, after enumerating the different lecturers, (and I must say few schools have better,) state, that clinical lectures will be given by Dr. Hunter, Messrs. Smith, Hey, and Teale. The session is now nearly over; and as yet we have not had a single clinique from either Mr. Smith or Mr. Hey, and only one from Mr. Teale. Dr. Hunter, on the contrary, has never lost an opportunity of imparting instruction to us, not only in this particular way, but by every other means in his power.

I would also remark, that the surgeons' day for seeing the out-patients at the infirmary is on a Wednesday, at half-past ten,

A.M.; but, instead of coming themselves, as it is their duty to do, they send an apprentice for an hour or two, and come themselves a little before twelve, just as we ought to go to the anatomical lecture at the school. By this you will perceive that we have little or no opportunity of seeing the surgical practice.

Mr. Hey has a fixed time for going round the wards, but he scarcely ever attends, but goes round any part of the day he happens to be at liberty, so that there are many in the school who have never had an opportunity of going round with him at all.

By inserting the above in your next Number, you will very much oblige

SEVERAL STUDENTS.

Leeds, April 6, 1841.

*** This communication has been authenticated.

VETERINARY MEDICAL ASSOCIATION.

AT a late meeting of this association it was announced by the Secretary that the following gentlemen were elected honorary associates: — Professor Magne, Veterinary School of Lyons; M. Callieux, President of the Veterinary Society of Calvados and La Manche, M. Lecoq, Secretary of the same society; M. Dumesne, President of the Veterinary Society of Finisterre; M. Eleouet, Secretary of the same; Professor Ferguson, King's College; Robert Liston, Esq., University College; Erasmus Wilson, Esq., Middlesex Hospital; and W. C. Spooner, Esq., Southampton.—*Veterinarian*, May, 1841.

BOOKS RECEIVED.

Practical Remarks on the Measures proposed for Reform in the Medical Profession. By a General Practitioner. London: Highley. 1841. Pamphlet. pp. 49.

The Cyclopædia of Practical Surgery; embracing a complete View of all the Departments in Operative Medicine. Edited by William B. Costello, M.D. Part VIII. London: Sherwood and Co. 1841.

A Series of Anatomical Plates, in Lithography, with References and Physiological Comments, illustrating the Structure of the different Parts of the Human Body. By Jones Quain, M.D., and Erasmus Wilson. Division V.; Bones and Ligaments. Fas. 1 and 2. London: Taylor and Walton.

The Transactions of the Provincial Medical and Surgical Association. Volume 9. London: Churchill; Sherwood. 1841. 8vo. pp. 582.

The Philosophy of Death; or, a General Medical and Statistical Treatise on the Nature and Causes of Human Mortality. By John Reid. London: Highley. 1841. 12mo. pp. 381.

The Mineral Springs of England, and their Curative Efficacy: with Remarks on Bathing, and on Artificial Mineral Waters. By Edwin Lee. London: Whittaker and Co. 1841. 12mo. pp. 124.

A General Outline of the Animal Kingdom, and Manual of Comparative Anatomy. By Thomas Rymer Jones, Professor of Comparative Anatomy in King's College. Parts 14 and 15. London: Van Voorst.

TO CORRESPONDENTS.

We shall be at all times glad to hear from the correspondent who commences the private postscript to his communication of the 10th inst., "The author of this letter will have much pleasure," &c.—[*To the Editor*, Sir, In the list of those who voted against the admission of Scotch, Irish, and foreign graduates into the College of Physicians, the name of Alexander Tweedie, M.D., a native of Edinburgh, stands prominently forward. Your obedient servant, A SCOTCH GRADUATE.]

Medicus could not practise as he describes, either alone or as a partner, without being liable to the prosecution; the chances of which being instituted, it is beyond a prudent man's duty to calculate. To speculate upon the commission of offences against the law with impunity, is to incur the risks which attend any other species of gambling. Better help to mend the law than to break it.

The letter of *A Medical Superintendent* has been received.

A. B. C.—It *ought* to be regarded as no infringement of the rules of the profession. Undoubtedly there would be no *impropriety* in it; but the profession, practising under a bad system, has many bad customs, and it requires some good sense and firmness to despise and avoid them.

W. F. B.—We should know the length of the communication, and have liberty to select the period of publication.

Inquisitor Junior.—Such a person cannot so practise, in *any* part of England or Wales.

The letters of *M. R. C. S., L., A Seceder*, &c., and *Mr. Wardleworth*, have been received.

Communications have been received from *Mr. Read; Dr. Hocken; Dr. James Arnott; A Chemist and Druggist; A Subscriber; Scoto-Chirurgus; Mr. Stamer Stanley; Mr. Grove; Mr. Semple.*

The letter signed *K. W.* did not reach the Editor until last week's Number was sent to press. It cannot well be answered publicly. If the writer would state where a private communication will reach him, a reply to his question shall be sent.

The letters of *A Looker-on* and *Mr. W. F. A. Browne* next week.